BUSINESS WEEK

250

225 -

200

175 .

150 -

125 -

100 -

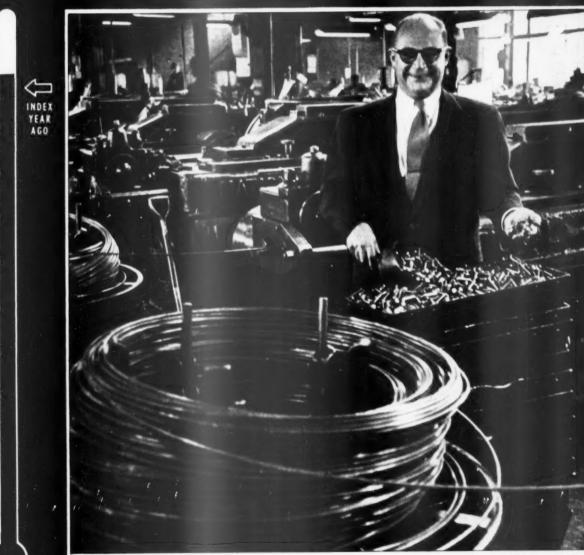
75

50 -

2,5

INDEX ON PAGE 24

Advertising



F. R. Dickenson of Townsend Co.: New lines for a company that was too rich (page 122)

A McGRAW-HILL PUBLICATION

OCT. 17, 1953

TWENTY-FIVE CENTS



"Nationals save us \$50,000 a year... repay their cost every 8 months!"

"Our National Accounting Machines save us over \$50 000 a year, repaying their purchase price every eight months . . . a 150% annual return on our investment.

"We have been a leading producer of candies, biscuits and chocolates for over 100 years (and are the world's largest manufacturer of hot fudge). This indicates the volume and variety of our accounting work. "We use Nationals on Accounts Receivable, Accounts Payable, Payroll Labor Distribution, Sales Distribution and Analysis, General Ledger and other accounting jobs. National's remarkable adaptability to all types of accounting—and the ease of training operators—are also factors of great value to us."

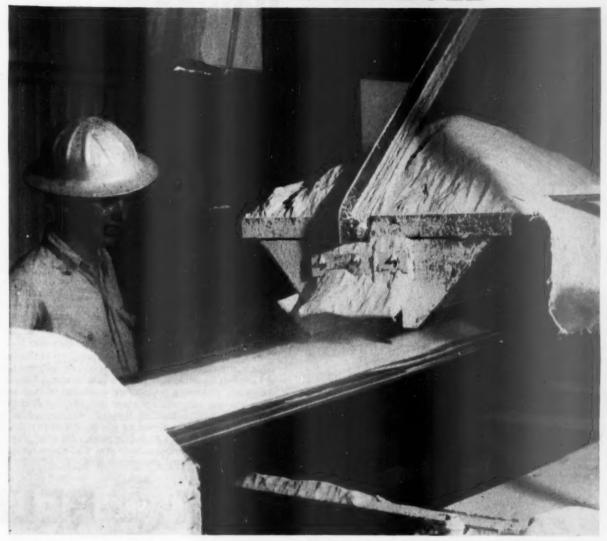
Edward C. Johnston President

- ROBERT A. JOHNSTON CO., Milwaukee
"Fine candies, biscuits and chocolate"

Regardless of the size or type of business, National machines cut costs by doing up to 2/3 of the work automatically. They soon pay for themselves out of the money they save, then continue savings as yearly profit. Operators are happier because their work is made easier. Your nearby National representative will gladly show how much you can save with Nationals adapted to your needs. Call him today!

THE NATIONAL CASH REGISTER COMPANY, DAYTON 9, OHIO

National



That white stuff winds up as windows

A typical example of B. F. Goodrich improvement in rubber

THAT steaming white cargo riding the conveyor belt is a special kind of salt, used in making window glass for the nation's stores, factories and homes.

As the salt travels from ovens to storage tanks, it is often 400 degrees hot. And with 1000 sizzling tons to move every day, expensive asbestos belts were burning out in seven months.

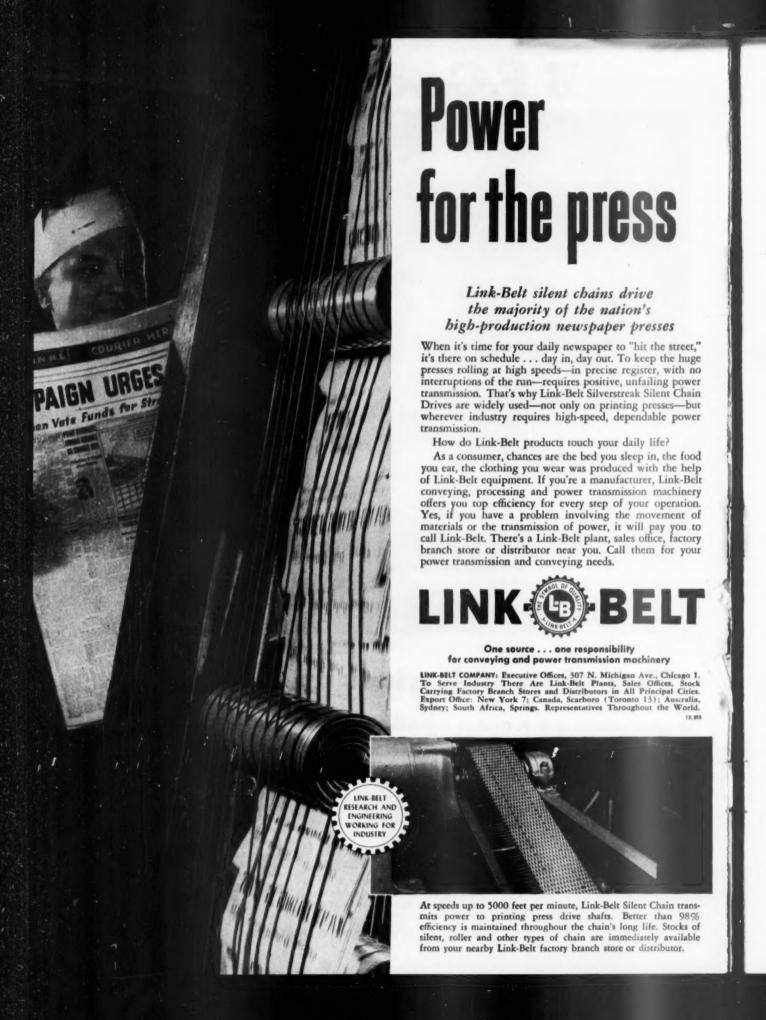
Then the company heard that B. F. Goodrich had developed a special heat-resisting rubber for belts that carry such hot materials as coke and lime. Inside the belt, B. F. Goodrich uses a rayon fabric that not only stands up under heat, but also makes a thinner, more flexible belt.

Put to work here at just half the cost of the asbestos belt it replaced, the B. F. Goodrich belt has already lasted 50% longer. And it still looks so good, engineers predict it will last twice as

Making a belt to stand terrific heat is typical of improvements made in other B. F. Goodrich belts-belts to carry materials that tear and cut ordi-

nary rubber, stand crashing blows of dropping coal and rock, carry oily foods and grains, move packages uphill and down. B. F. Goodrich research constantly improves them all. That's why it will pay you to find out what recent improvements B. F. Goodrich has made in any rubber product you use. Call your local BFG distributor, or write The B. F. Goodrich Company, Dept. M-109, Akron 18, Ohio.

INDUSTRIAL PRODUCTS DIVISION



BUSINESS WEEK

EDITOR & PUBLISHER Elliott V. Bell MANAGING EDITOR Edgar A. Grunwald EXECUTIVE EDITOR Kenneth Kramer

ASSISTANT MANAGING EDITOR Robert B. Colborn
ASSOCIATE MANAGING EDITOR John L. Cobbs
ASSOCIATE MANAGING EDITOR Peter French

DEPARTMENTS

Business Outlook: Clark R. Pace, Editor
Commodities: Gertrude Charloff, Editor
Finance: William McKee Gillingham, Editor; Paul D. Gesner
Foreign: Howard Whidden, Editor; Paul R. Miller, Jr., George F. King, Jr.
Industrial Production: Charles M. Garvey, Editor; George J. Gray, Jr.
Labor: Merlyn S. Pitzele, Editor; Edward T. Townsend
Management: Richard L. Waddell, Editor; John R. Thomas
Marketing: Carl Rieser, Editor; Cora Carter, Richard M. Wight
Personal Business: Guy Shipler, Jr., Editor
Regions: Richard M. Machol, Editor
Research: John K. Fockler, Editor
Illustration: Harry Jensen, Kate McSweeney, Editors; Richard A. Wolters (Pictures-Photography),
Robert Isear, Herbert F. Kratovil, Jomary Mosley, Arthur Richter

Special Projects: Frank J. Fogarty
The Trend: M. J. Rossant
Library: Dorothy Roantree, Librarian: Emily Cherry, Ruth Callanan
Assistant to the Editor & Publisher: John F. Hartshorne

NEWS EDITORS

Marilyn T. Benjamin, T. B. Crane, Robert F. Deed, Maxwell D. Gunther, Doris I. White

EDITORIAL ASSISTANTS

Edward J. Burgess, Jr., Mary M. Burgess, David B. Carlson, Marguerite G. Cronin, Elsa Denno, D. A. Drennen, Jean Drummond, Alice Marks, Dorothea Schmidt

ECONOMICS STAFF

Dexter M. Keezer, Director; Peter J. Davies, Richard Everett, Howard C. Gary, Douglas Greenwald, Margaret Matulis, Robert P. Ulin

DOMESTIC NEWS SERVICE

Chicago Bureau: James M. Sutherland, Manager; Mary B. Stephenson, Dorothy Miller Cleveland Bureau: Robert E. Cochran, Manager; Jean H. Henderson Detroit Bureau: William Kroger, Manager Houston Bureau: Eugene Miller, Manager Los Angeles Bureau: Thomas M. Self, Manager Philadelphia Bureau: W. B. Whichard, Jr., Manager Pritsburgh Bureau: Richard N. Larkin, Manager San Francisco Bureau: Richard Lamb, Manager; Joanne O'Brien

Washington Bureau: George B. Bryant, Jr., Manager, Glen Bayless, Carter Field, Jay Flocken, Boyd France, Joseph Gambatese, Sam Justice, William H. Kearns, John L. Kent, Donald O. Loomis, Jesse Mock, Gladys Montgomery, Arthur L. Moore, Morton A. Reichek, Caroline Robertson, Vincent

Smith.

Correspondents: Akron, Albany, Atlanta, Austin, Baltimore, Birmingham, Boston, Buffalo, Charleston, Charlotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Duluth, Fort Worth, Greensboro, Hartford, Jacksonville, Kansas City, Knoxville, Little Rock, Memphis, Milwaukee, Minneapolis, Nashville, New Orleans, Oklahoma City, Orono, Philadelphia, Phoenix, Portland, (Ore.), Providence, Richmond, Rochester, Salt Lake City, San Antonio, San Diego, Seattle, St. Louis, Syracuse, Toledo, Wilmington, Worcester, Honolulu.

FOREIGN NEWS SERVICE

Editor: Joseph K. Van Denburg, Jr. Frankfurt: Gerald W. Schroder London: Nathaniel McKitterick Manila: Herbert Leopold

Mexico City: John Wilhelm Paris: Ross Hazeltine Sao Paulo: Lionel J. Holmes Tokyo: Alpheus W. Jessup

Correspondents: Amsterdam, Athens, Bangkok, Beirut, Belgrade, Bogota, Bombay, Brussels, Buenos Aires, Cairo, Caracas, Ciudad Trujillo, Copenhagen, Djakarta, Durban, Geneva, Guatemala City, Havana, Helsinki, Istanbul, Johannesburg, Karachi, La Paz, Lima, Madrid, Melbourne, Oslo, Ottawa, Panama City, Quito, Reykjavik, Rome, Salzburg, San Juar, San Salvador, Santiago, Stockholm, Sydney, Tehran, Tel Aviv, Wellington, Winnipeg.

ADVERTISING & BUSINESS MANAGER Herman C. Sturm



BUSINESS WEEK . OCT. 17 . NUMBER 1259

(with which are combined The Annalist and the Magazine of Business a Published weekly by McGraw-Hill Fublishing Company, Inc., James H. McGraw (1860-1863), Founder & Publish H. McGraw (1860-1863), Founder & Publish W. V. & Editorial Executive and Advantage of the Company of t

President and Director of Circulation, Business Week, 99-139 N. Broadway, Albony I. N. Y. or month for change of address.

Subscriptions to Business Week are solicited only from management men in business and inbe indicated on subscription orders.

Single copies 25c. Subscription rates—United States and possessions \$6.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Canada \$7.50 a year; \$14.00 for three years. Subscription rates—United States and possessions \$6.00 a year; \$14.00 for three years. Subscription rates—United States and possessions \$6.00 a year; \$14.00 for three years. Subscription rates—United States are subscription of the years of the property of the possessions and the years of years of the years of years of the years of



ELWELL-PARKER

truck installations are

Field Engineered

Truck experience of the 40 E-P Field Engineers averages over 15 years apiece. They can help you select exactly the right trucks from the 80-model Elwell-Parker line. It includes gas or electric powered high and low lift platform trucks, fork trucks, mobile cranes. To solve your unusual handling problems, E-P Field Engineers will work with you to designa special or modified truck. E-P Field Engineered installations cost no more—insure best possible truck performance.

GET ALL FACTS

Send for this new catalog illustrating all Elwell-Parker Plus Values. Write The Elwell-Parker Electric Co., 4011 St. Clair Ave., Cleveland 3, O.



ELWELL-PARKER Power Industrial Trucks Since 1906

FOR

PRESIDENTS SALES MANAGERS ADVERTISING MANAGERS

WHO SEE HARD SELLING AHEAD

AFRILIATED GAS EQUIPMENT, INC.
AIR REDUCTION COMPANY, INC.
ALCOA STEAMSHIP CO., INC.
ALUMINUM COMPANY OF AMERICA
THE ALUMINUM COOKING UTENSIL CO.
ALUMINUM WARES ASSOCIATION
AMERICAN BRAKEBLOK DIVISION
AMERICAN BRAKEBLOK DIVISION
DOMINION BRAKEBLOK DIVISION
DOMINION BRAKEBLOK COMPANY, Ltd.

CLIENTS:

AMERICAN BRAKEBLOK DIVISION
DOMINION BRAKE SHOE COMPANY, Ltd.
AMERICAN BRAKE SHOE CO,
AMERICAN BRAKE SHOE EXPORT DIVISION
AMERICAN FORGE DIVISION
AMERICAN FORGE DIVISION
AMERICAN GREETINGS CORPORATION
AMERICAN LUMBER & TREATING CO.
AMERICAN MANOANESE STEEL DIVISION
AMERICAN BRAKE SHOE CO.
AMERICAN SOCIETY FOR METALS
F. E. ANDERSON OIL COMPANY, INC.
THE AUSTIN COMPANY

BAILEY METER COMPANY H. J. BAKER & BRO. BLUE RIDGE GLASS CORP. THE BRIAR HILL STONE CO. BRIONES & Co., INC. THE BRYANT ELECTRIC COMPANY BRYANT HEATER DIVISION Affiliated Gas Equipment, Inc. CARIBBEAN TOURIST ASSOCIATION CENTRAL NATIONAL BANK OF CLEVELAND CHICAGO & EASTERN ILLINOIS RAILROAD THE CLEVELAND PRESS COMMERCIAL INVESTMENT TRUST, INC. COMMERCIAL SOLVENTS CORPORATION DESIGNERS FOR INDUSTRY, INC. DETROIT STEEL PRODUCTS COMPANY DIAMOND ALKALI COMPANY A. B. DICK COMPANY DOMESTIC SEWING MACHINE Co., INC. B. F. DRAKENFELD & Co., INC.

DRESSER MANUFACTURING DIVISION Dresser Industries, Inc. ELECTRO-ALLOYS DIVISION American Brake Shoe Co. **EVANS PRODUCTS COMPANY** HARRY FERGUSON, INC. FERRO CORPORATION FOSTORIA GLASS COMPANY GEORGIA-PACIFIC PLYWOOD COMPANY GRAY IRON FOUNDERS' SOCIETY, INC. GRUMMAN AIRCRAFT ENGINEERING CORP. THE HANDY SALES MFG. Co., INC. HARRIS-SEYBOLD COMPANY HERCULES POWDER COMPANY HEWITT-ROBINS INCORPORATED AND DIVISIONS INGERSOLL PRODUCTS DIVISION Borg-Warner Corporation INTERCHEMICAL CORPORATION JACK & HEINTZ, INC.

A & M KARAGHEUSIAN, INC.

which market?

Are you in the right markets? Are you working these markets right? Are the markets that tempt you right for you—for your physical and manpower capacities? Through field study we can help you arrive at working answers to these and similar questions.



what route?

Are the policies which support and direct your sales organization geared to today's market realities? Are you emphasizing the right things; are you fully succeeding in relating your product to market needs? By field study we can help cast a revealing light on this area of your operations.

what tools?

Are your sales tools suited to the abilities of your organization and your distribution channels? Do they meet your competitive situation? Do they live up to your opportunities? We think sales tools have equal importance with advertising; we are organized to develop such tools as a prime responsibility.

what training?

Factory, distributor and dealer salesmen can be no better than their training. Our definition of agency service includes both ability and facilities to prepare workable sales training programs.

how is advertising built in?

In our view, advertising, either in *space* or *time*, is not an isolated activity. Of itself, it must embody the highest creative standards. Yet, whatever its special brilliance, it falls short of full power if it is not built into the daily, hard-slugging routine of the salesman, the distributor, and the dealer.

The habitual practice of this point of view is at the core of our conception of agency service.

If these paragraphs strike a responsive chord, a responsible executive in one of our three offices is at your call.

FULLER & SMITH & ROSS INC.

NEW YORK . CLEVELAND . CHICAGO

THE KAWNEER COMPANY
KELLOGG DIVISION
American Brake Shoe Co.

KELLOGG DIVISION
DOMINION BYAKE Shoe Company, Ltd.
KEYSTONE STEEL & WIRE COMPANY
THE OTTO KONIGSLOW MFG. CO.
LIBBEY'OWENS'FORD GLASS CO.
LICENSED BEVERAGE INDUSTRIES, INC.
THE LINEN THREAD CO., INC.
LUKENS STEEL CO. AND DIVISIONS
MANNING, MAXWELL & MOORE, INC.
MELLON NATIONAL BANK AND TRUST CO.
NATIONAL BEARING DIVISION
American Brake Shoe CO.

NATIONAL ELECTRICAL CONTRACTORS ASSN.
NATIONAL MACHINE TOOL BUILDERS ASSN.
NATIONAL OAK FLOORING MANUFACTURERS'
ASSN.

THE NATIONAL SCREW & MFG. CO. NICKEL PLATE ROAD OHIO EDISON COMPANY THE OHIO ELECTRIC UTILITY INSTITUTE
THE OHIO INJECTOR CO.
THE OHIO PISTON COMPANY
OLNEY & CARPENTER, INC.
OWENS-CORNING FIBERGLAS CORPORATION
THE PARKER APPLIANCE COMPANY
THE PENNZOIL COMPANY
PESCO PRODUCTS DIVISION
BOTG-WATTHE COTPORATION
PITTSBURGH LECTRODRYER CORP.
PLYMOUTH CORDAGE CO.

PLYMOUTH CORDAGE CO.
PRECISION METALSMITHS, INC.
PRE-VEST, INC.
PULLMAN-STANDARD CAR MFG. CO.
RAILWAY EXPRESS AGENCY, INC.
RAMSET FASTENERS, INC., RAMSET DIVISION

Olin Industries, Inc.
REFINED SYRUPS & SUGARS, INC.
ROOTS-CONNERSVILLE BLOWER

A Division of Dresser Industries, Inc.

THE RUBEROID CO.
THE SHERWIN-WILLIAMS CO.
STACEY BROS. DIVISION

Dresser-Stacey Company STANDARD COATED PRODUCTS INCORPORATED THE STANDARD PRODUCTS COMPANY

STERLING-LINDNER-DAVIS
THE STOUFFER CORPORATION
TILE COUNCIL OF AMERICA
TRIPLE - M DIVISION

The Motch & Merryweather Co.
THE TRUCKSTELL MANUFACTURING COMPANY
THE TRUNDLE ENGINEERING CO.
TUTTLE & KIFT, INC.

THE WEATHERHEAD COMPANY
WESTER-CHICAGO CORPORATION
WESTINGHOUSE ELECTRIC CORPORATION

Westinghouse Electric Supply Co. West Penn Power Company The WGAR Broadcasting Co,

THE WOOSTER BRUSH COMPANY



1919 U. S. Navy Flying Boat, Curtiss NC-4, made first transatlantic crossing under command of Lt. Cdr. A. C. Read. Trip depended upon Sperry Turn Indicator and Drift Set.

GLOBAL



NAVIGATION...

another Sperry first... 1919

Man tested his wings over the Atlantic for the first time May 16, 1919 when the U. S. Navy Flying Boat NC-4 began its historic 11-day trip to Lisbon. Aboard were Sperry instruments to aid in navigation—and Sperry instruments have played a vital role in global navigation ever since.

Since the Sperry Turn Indicator and Drift Set of that early flight have come the major navigational aids of our times — the Gyro-Horizon, Directional Gyro, Gyrosyn* Compass, Automatic Pilot, and Automatic Approach Control—electronic Sperry "brains" so precise and so dependable that global navigation today is largely routine. And yet, Sperry engineers are not satisfied. From Sperry developments now under way may soon come a new form of global navigation—navigation, which by comparison will dwarf Sperry's present achievements!

ST.M. REG. U.S. PAT. OFF.



1947 First "pushbutton" flight across the Atlantic by the USAF All-Weather Flying Division. Douglas C-54, with Sperry Gyropilot and Automatic Approach Control, made trip both ways including take-offs and landings without human hands touching the controls.



One of a series of advertisements commemorating the Fiftieth
Anniversary of Powered Flight.





1924 First round-the-world flight by Army required 175 days. The two Douglas World Cruisers, Chicago and New Orleans, were each equipped with a Sperry Master Compass.



1932 First woman to fly the Atlantic solo was Amelia Earhart. Her Lockheed Vega was equipped with Sperry Gyro-Horizon and Directional Gyro and made the trip in 14 hours and 54 minutes.



1953 Air Force bombers, like the Boeing B-47B, depend on Sperry Bombing Navigational Computer to complete their global missions. Last year aboard commercial airliners other Sperry navigational equipment helped 2,362,000 trans-ocean passengers to reach their destination safely. You'll find Sperry too in the cockpits of the long-range jet transports of the luture.



uses Dearborn water treatment in its own La Crosse, Wisconsin, plants

Trane knows the importance of top performance in quality heating and air conditioning equipment. They are also well aware of the necessity for proper water conditioning. That's why Trane has selected Dearborn boiler water treatment and engineering service to maintain high production efficiency at minimum operating costs. If you have steam boiler and rust prevention problems, bring them to Dearbornmany leading industrial plants do!

WHY YOU CAN RELY ON W

Dearborn has specialized in the conditioning of water and the control of corrosion since 1887. This broad experience in water treatment and rust prevention-plus Dearborn's extensive laboratory and research facilities are at your service...at no obligation. You'll find it will pay to...



now your Dearborn engineer

COMBATTING CORROSION EVERYWHERE SINCE 1887

Dearborn Chemical Company, Merchandise Mart Plaza, Chicago 54, III. Reader's Digest during the first three

READERS REPORT

Home Office

Dear Sir:

Being a "home secretary" myself, I read your article on the Trattner Secretarial Office System [BW-Sep.12'53, p190] with great interest.

I have been typing letters in my home for some time, and enthusiastically endorse this type of work for any woman who has a home and children to care for but would still like to earn some money for extras.

DOROTHY WOODARD

INDIANAPOLIS, IND.

Operation Piggyback

We . . . were very interested in Busi-NESS WEEK'S comprehensive article of September 12, page 110, on the handling of truck trailers aboard railroad flatcars, but regret that Southern Pacific's operation did not receive men-

As you know, Southern Pacific, in conjunction with its trucking affiliate, Pacific Motor Trucking Company, has been running a "piggyback" operation between San Francisco and Los Angeles for LCL traffic since May. The operation was expanded to include carload

traffic on July 20.

Perhaps you will be interested in the fact that this service is becoming very popular with California shippers. When first started, we had four flatcars, each carrying two trailers, assigned to the operation. We now have 17 flatcars and 48 trailers assigned to this service. Trailer-on-flatear service has recently been started by S. P. between Los Angeles and Phoenix for LCL shipments

Southern Pacific also has a similar trailer-on-flatcar operation between Houston, Texas, and Lake Charles, Louisiana, on its Texas and New Orleans Lines.

K. C. INGRAM

ASSISTANT TO THE PRESIDENT SOUTHERN PACIFIC COMPANY SAN FRANCISCO, CAL.

Multiply Your Readers

Dear Sir:

In the September 19 issue of Busi-NESS WEEK, the section, Marketing Briefs (page 154), carried an item on magazine circulations. Referring to a recent article in Tide, briefs cited the average monthly circulation of the

Evansville, Indiana Plays an Important Part in *"Industrial Fore-Site"

Basic economic advantages confirm the growing potentialities for industrial expansion in the Evansville area



WRITE FOR THIS FREE ECONOMIC STUDY OF EVANSVILLE, INDIANA

For your copy of Industrial Potentialities of Evansville, Indiana, write in confidence to: Chief Economist, Chicago & Eastern Illinois Railroad, 332 South Michigan Blvd., Chicago 4, Illinois.

The supply base for most of America's industries lies north of the Ohio River. Evansville, on the Ohio, has the most strategic position for converting these materials to the needs of the region south of the river. Also, as the major manufacturing and transport site nearest America's center of population, Evansville is unexcelled as a nationwide distribution point.

Industrial Potentialities of Evansville, Indiana, a factual study of the opportunities in Evansville for plant location, permits comparison of the industrial advantages of Evansville with those of other locations.

The book includes documented information on utilities, mineral resources, transportation, labor, agriculture and warehousing . . . all contributing to the production and distribution opportunities of the Evansville area. It also includes tabulations, by commodities, of the amounts and values of industrial consumption and output. This invaluable information answers many local marketing and supply questions which may determine plant site selection.

*"Industrial Fore-Site"—A shrewd management quality that gets the jump on competition by choosing plant sites with superior economic advantages.

Your Consulting Engineering Firm will find this information necessary in analyzing Evansville, Indiana, relative to your requirements.

CHICAGO & EASTERN ILLINOIS RAILROAD





months of 1953, and then went on to say: The next nearest magazine, Life, sold 5.4-million a month. . . ."

Perhaps it is implied that during the same period our average issue sale was 5.4 million (which is certainly the case), but I'm afraid your statement as it appeared is misleading.

Like Business Week, we appear 52 times a year—an average of 4 1/3 times each month. Let's see, that adds up to something like 23 million copies a month, 281 million copies a year.

Move over, Reader's Digest.

H. G. STODDARD

ASSISTANT TO THE PUBLISHER

NEW YORK, N. Y.

Preventing War

Dear Sir:

In your Washington Outlook report [BW—Sep.26'53,p37], you summarize the effects of an atom and hydrogen bomb attack by Russia. You stated that the casualties would be an estimated 50-million for the first enemy raid. You further state that we would retaliate and the enemy would suffer proportionately. You state as the big question which officials are concerned with: "Hurt that badly, could we come back

-and fight to win?" Before one even considers the question of whether we would have sufficient strength to come back if most of our cities of over 100,000 population were attacked, and there were 50-million casualties, I think there is a completely obvious and more important conclusion. With the threat of obliteration and 50-million casualties on the first attack, and with the threat of annihilation imminent for both the United States and Russia, and then probably the rest of Europe, does it not strike you as of primary importance that we must bend all efforts toward prevention of such a thing happening, rather than coming back to win? It is almost incredible that you consider fighting to win as being even a remote possibility with over one-third of our population as casualties on the first attack, not to mention the subsequent casualties on subsequent attacks. It would seem un-believable to me that there would be

let alone fight to win.

In the light of the fantastically destructive potential of the present day weapons, it is time to divorce ourselves from 19th century thinking. There is no possibility of winning. If you can come to any other conclusion after hearing that 50-million people have become casualties, then you are living in

enough of our population left to fight,

an age long gone by.

It should be obvious that it is incumbent upon us to be extremely interested



"Doing just fine!"

In a business enterprise, too, growth is an important index to good health. And Phillips Petroleum Company recently passed a significant growth mark when it became the 30th corporation in American industry with assets in excess of one billion dollars.

In the past five years Phillips has more than doubled in size. It is nearly four times larger than ten years ago, and far more diversified. Yet bigness itself is not the test of greatness: the real significance of this achievement lies in the accomplishments of our employees, the confidence of our stockholders, and the loyalty of our customers, who have made this growth possible.

As businesses go, even in the oil industry, Phillips is a *young* company, founded only 36 years ago. We are confident that we will continue to grow, meeting the wants and needs of our still growing nation.

PHILLIPS PETROLEUM COMPANY

Bartlesville, Oklahoma

We Put the Power of Petroleum at America's Service





- Orders written on a
 Colitho plate
- Plate mailed to factory
- No transcriptions—no copying errors at factory
- Copies run off for production, shipping, invoicing, accounting
- Costly order typing pool eliminated
- Time saved—costs slashed

Regardless of the kind of business you are in, Colitho Systems offer time and money savings in purchasing, manufacturing, distributing, selling, billing and accounting. For more information, mail the coupon attached to your business letterhead.

pack or roll forms. Colitho Business Systems

provide for variables and blackouts, deletions

or additions. Partial information can be added

at any time. All business paper work lends itself

to simplification through a Colitho System.*

*Where spirit duplicating equipment is used the same results can be obtained with a Columbia Ready-Master System.

Colitho Division

Columbia Ribbon & Carbon Mfg. Co., Inc.

Colitho Division, Columbia Ribbon & Carbon Mfg. Co., Inc.

5010 Herb Hill Rd., Glen Cove, New York

Please send information about Colitho and Ready-Master Business Systems.

Our duplicating equipment is: Offset Spirit

Name

Company

Address

City

Zone

State

in preventing the next war rather than in winning it. . . .

HOWARD R. CONANT

INTERSTATE STEEL CO. EVANSTON, ILL.

The First

Dear Sir:

In the article entitled Key to the Electronics Boom [BW—Sep.19'53, p57], the statement is made that the first commercial cathode-ray oscillograph was marketed by the Allen B. Du Mont Laboratory in 1932.

Actually this is incorrect. The first commercial cathode-ray oscillograph was marketed by the General Radio Co. in early 1931. The General Radio oscillograph used a cathode-ray tube designed and built in Germany. At that time, I believe Du Mont had not yet produced cathode-ray tubes in commercial quantities.

C. E. WORTHEN

GENERAL RADIO CO. CAMBRIDGE, MASS.

Starting the Week Right

Dear Sir

We were very much impressed with the recent article appearing in Business week (Sept. 5, page 64), regarding the new Osborn Automatic Molding machine for making cylinder blocks. We have received some very complimentary remarks from people who apparently make it their rule to start the week out by first reading business week. . . .

LEON F. MILLER

VICE-PRESIDENT
MACHINE DIVISION
THE OSBORN MANUFACTURING CO.
CLEVELAND, O.

Magnetic Tape

Dear Sir.

Congratulations on your very fine article, Tape Unreels Magnetic Future, in your September 12 issue, page 46.

For your information there are only four manufacturers of magnetic tape in the United States. In your listing you omitted Orradio Industries, world's largest exclusive manufacturer of magnetic tape.

I. HERBERT ORR

PRESIDENT
ORRADIO INDUSTRIES
OPELIKA, ALA.

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 36, N. Y.

Be sure we realize what gets depreciated

Let's SAY I make suits, and get \$1 an hour. The more hours I take, to make a suit, the more you are going to pay for it. But suppose my company invests in modern machinery, and I use it to best advantage. Now I can make a suit in fewer hours, my company can pay me more than \$1 an hour and still sell the suit for less. You save money.

All because thrifty people saved money; managers borrowed that money and invested it in modern machines; workers used those machines well.

But the government has a responsibility, too tax rates that let thrifty people save money, and capital recovery rates that let companies keep buying the most modern machinery. Otherwise it is America's standard of living that depreciates.





HOW TO GIVE A BEE AN INFERIORITY COMPLEX

The giant honeycomb structure shown above being fabricated by skilled assemblymen at the Goodyear Aircraft Corporation will soon be a mammoth radar-reflector "dish" carried by one of the nation's largest airplanes — a dish with an area of 61 square feet yet weighing less than 100 pounds!

This amazing low-weight-to-size ratio is the key to the success of Bondolite—the strong and feather-light structural material developed by Goodyear Aircraft.

It consists of a lightweight "filler"—such as the aluminum honeycomb core shown here—to which thin, exterior sheets of aluminum, stainless steel or some other metal are bonded by an adhesive. In some cases adhesive-impregnated glass fiber cloth is used.

Goodyear Aircraft, a pioneer in producing difficult

double-contoured sandwich structures such as the radarreflector dish, manufactures complete panels to any specifications desired by the customers—utilizing core materials ranging from honeycombs of metal, plastic, paper, cloth, to solid wood cross sections.

Bondolite construction results in tremendous weight savings over conventional structural materials, has excellent sound and heat insulational qualities. Among its many aircraft uses are compartment panels, decks, bomb bay doors, and wing trailing edges; it has varied commercial applications: superstructures of sea-going vessels, railroad cars, housing, trailers, office equipment.

Bondolite is another product of Goodyear Aircraft developed for the aeronautics industry—with unlimited uses in the commercial field. Goodyear Aircraft Corporation, Dept. 65, Akron 15, Ohio.

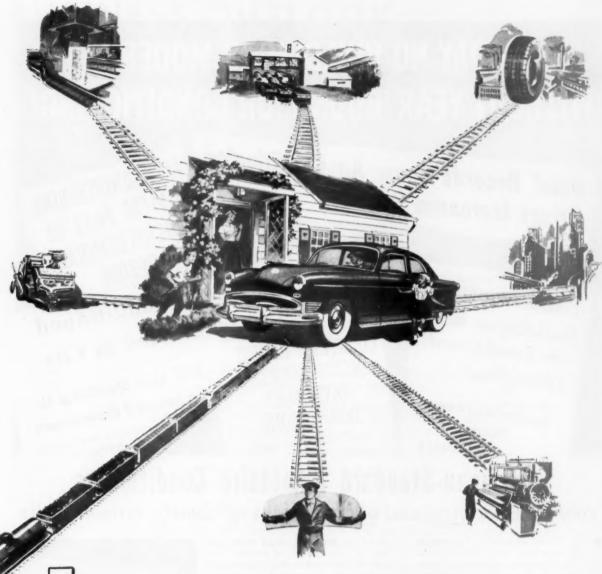
BONDOLITE made only by

Opportunities Unlimited—for engineers!

Goodyear Aircraft has many opportunities in research, design, development and production of ELECTRONIC COMPUTERS * AIRPLANES * AIRSHIPS * HELICOPTERS * GUIDED MISSILES * AIRCRAFT COMPONENTS * TRANSPARENT ENCLOSURES * RADOMES * BONDED SANDWICH STRUCTURES * RADAR * WHEELS and BRAKES — and in many other allied fields.

Submit brief resumé af your qualifications and experience, or write today for application blank and further information. Address: Dr. K. Arnstein, Vice President of Engineering, Goodyear Aircraft Corporation, Akron 15, Ohio.





The assembly line that's 225,000 miles long... ends at your front door!

Remember how proud you were when you drove that bright, shiry, new car up to your front door for the first time? And the family came flocking, and maybe a wistful neighbor or two?

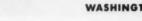
Well, the railroads had a part in that pride, too. For over their 225,000-mile assembly line of steel rails they moved the raw materials required for making the 15,000 parts that go into an auto. Then they moved finished parts — frames, engines, tires, fabrics, glass — from factories all over America to the auto assembly plants.

And just as railroads helped build your family car, they help make possible almost everything else you use in your daily life and work . . . the food you eat, the clothes you wear, the house in which you live.

In doing this, railroads move more

tons of freight more miles than all other forms of transportation combined. And, important to you when it comes to the prices you pay for things, railroads do this huge job of hauling at charges which average less than those of any other form of general transportation.

ASSOCIATION OF AMERICAN RAILROADS



You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.



American-Standard Remotaire Conditioners

cool and heat new and old buildings efficiently, economically

● Year 'round air conditioning is news... big news these days. And no building is truly modern without it. When you build or modernize let American-Standard Remotaire units provide year 'round air conditioning for your office building, hotel, motel, apartment house, hospital or other large building.

The Remotaire uses chilled water from a central chilling plant for summer cooling . . . hot water from a central heating plant for winter comfort. It filters and circulates comfortable air at all seasons. The Remotaire unit is installed in each individual room and may be free standing or recessed into the wall. Since each Remotaire unit is individually controlled, it allows a choice of room temperature without affecting adjoining rooms.

The adaptability of the Remotaire makes it ideal for modernization as well as new building. For more information on this new, efficient way to air condition, fill in and return the coupon.

American Radiator & Standard Sanitary Corporation, Pittsburgh 30, Pennsylvania.



UNUSUALLY STURDY CABINET is made of reinforced steel for greater strength. Toe-step offset eliminates dust catching reium air grille and prevents marring front of unit when cleaning. Floor coverings fit better around base.

American-Standard

Air conditioning

Am			_	_	-	-		-		-			0	,	13.			
Dept	. 251	W -)	U	3.	1	.31	1.2	10	ur	K	1	3	e,		178	l.		
Pl	ease	9 80	en	d	n	ne	3	70	ui	. 1	in	96	9	b)(oli	de	et
"Re		-8-	_	Q.		× _	_											
200	mou	HIL	e	3	y s	te	ш	illi.										
NAM				-													. ,	
	E																	

BUSINESS OUTLOOK

BUSINESS WEEK OCT. 17, 1953



Some sharp differences of opinion are developing on the much-talked-of "inventory adjustment."

Over all, it seems clear the industry still was accumulating inventories in the quarter just ended—but at a slower rate.

At the same time, you find men in steel who say their adjustment is over. Their new orders began to indicate customer caution early in the summer. Now their bookings convince the optimists that the worst is past; more cautious executives feel that at least part is behind them (page 27).

Most economists will be hard to sell on the idea that the inventory situation has been cleaned up so quickly and easily.

They will simply cite the absolute level of stocks—now at a new high of about \$79-billion—in pinpointing the danger.

All business—manufacturers, wholesalers, and retailers—now holds inventories worth \$7-billion more than a year ago. Compared with pre-Korea (and disregarding price changes) the rise is \$25-billion.

Such figures aren't conclusive, of course. It's hard to argue with the order book. But they're bound to cause nervousness.

Here is what estimates by the Dept. of Commerce, prepared for the Council of Economic Advisors, show on inventories:

Stocks still were being expanded in the third quarter at an annual rate of \$5½-billion. But that was down \$3.3-billion from the \$8.8-billion estimated rate of accumulation in the second quarter.

That's pretty fuzzy. But you can boil it down this way:

A cut in buying for inventory means lost business. It's a minus for anyone trying to figure the over-all size of the economy.

Inventory footnote—Steel companies' new business may be encouraging—but their purchasing agents still are among the toughest in all industry. They still buy hand-to-mouth; they're brutal on price.

That helps account for the troubles in zinc. Steel mills' galvanizing divisions are among the zinc industry's most important customers.

Total volume of business done in this country—measured in terms of price tags—now is running \$371-billion a year.

That's our gross national product, the total value of all goods produced and services rendered. If all the estimates that go into its determination are correct, this \$371-billion rate for the third quarter is down \$1.4-billion from the preceding three-month period.

Such a decline, percentagewise, is almost negligible. Relatively small revisions could turn the loss into gain.

But, as of now, the third quarter of 1953 appears to stand as the first three-month period since 1949, which hasn't set a new record.

This week, bolstered by a big Columbus Day, merchants seemed more nearly ready to throw their hats in the air.

Volume in August and September could hardly be called disheartening but, at the same time, it was nothing to cheer about. That's unimportant though, given a good week now and a couple more before Christmas.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK OCT. 17, 1953

Consumers will want—and can afford—a vast volume of goods.

You can see that from their third-quarter spending: The Commerce Dept. puts purchases of durables at a \$31-billion annual rate, up \$300-million over the second quarter; nondurables at \$123-billion, up \$900-million; and services at \$79-billion, up \$1.4-billion.

Thus, talk of unemployment and less overtime aside, consumers pitched in \$2.6-billion to offset any dip in government and business spending.

Employment, wage rates, and hours worked are bound to influence consumers' "propensity to spend" in coming months.

Even so, don't ignore past earnings that weren't spent.

People put away an estimated 6.8% of the money they had left after taxes in the third quarter. That, by past experience, is high—even though it is down from 6.9% in the previous quarter and 8.2% a year earlier.

And, by way of belated confirmation of savings trends, the Securities & Exchange Commission says the "liquid" portion of individuals' savings in the second quarter this year totaled \$3.7-billion.

Spending plans of the consumer seem to be running into some frustrations in the field of housing if nowhere else.

The trouble here (as always with big-tag merchandise) is that more money is needed to swing the transaction than just current income. There's the down payment on a house—and lenders today want more than a token.

There may be enough mortgage money, but not at the right terms.

Put it the other way around, and it applies equally: There are lots of borrowers, but not the ones that lenders are willing to bank on.

Here's a statistician's-eye view of the housing market. New dwelling units started in the first half of 1953 ran a little ahead of the year before. But the second half will miss by perhaps 50,000.

Housing starts in the third quarter were a shade above the restricted 1951 rate, but fell behind the same period in 1949, 1950, and 1952.

The third quarter, however, looked much better than that in terms of value of work done on new houses (due to the higher rate of starts earlier in the year and the steady rise in building costs).

Sales of home furnishings are bound to feel the decline in residential building—particularly if it should become more pronounced.

This may have something to do with the fact that the recently announced rise in carpet prices doesn't seem to be sticking. Mohawk this week postponed to Nov. 1 its 3% to 6% boost, originally effective Oct. 15.

Markups in tire prices at the manufacturers' level (BW-Oct.10'53, p34) don't seem to be changing dealers' bargain offers to the public.

Nor do predictions of record world rubber consumption this year seem to be helping prices of natural crude. The plantation product this week was quoted fully 3¢ a lb. below the government-pegged synthetic price.

Contacts copyrighted under the general copyright on the Oct. 17, 1955, Issue—Business Week, 239 W. 42nd St., New York, N. Y.



Photograph by Howard Luray

MAKE WAY FOR CONSTRUCTION!

If you want to see a typical example of American skill, energy and enterprise at work, take a look around your community. Chances are you will see several types of new construction going on.

The dynamic construction industry, working with improved methods and equipment, is building America at an unprecedented rate. Construction of housing, highways, public utilities, public buildings, airports, industrial plants and other projects has increased until the total has reached a volume of over thirty billion dollars a year!

The construction industry has also contributed to the growth and progress of American Cyanamid Company as a leader in the chemical field. Several new Cyanamid plants, offices, warehouses and other facilities are now being built or have recently been completed. These will help Cyanamid supply additional materials and services to more than 200 industries which, in turn, manufacture products used in building and construction. Here is another example of how American business works to strengthen and expand our national economy.





30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

A GREAT NEW MATERIAL!

COMPOIT CONTROLLED MECHANICAL LEATHER

Announcing the most important development in sealing and packing material since the invention of the oil seal.

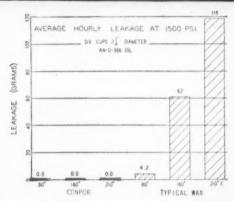
TRADE MARS

conpor

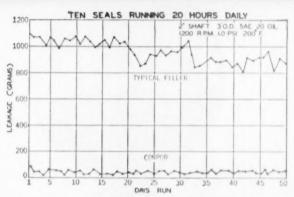
Conpor is the first material for oil seals and packings that provides all the advantages of leather and yet gives complete porosity control. It has flexibility, strength, stability, oil and solvent resistance, yet permits lubrication through the seal or packing member—with a controlled porosity range of from zero

to 100%. Conpor is the result of a six-year development program. Now, by impregnating specially tanned C/R Sirvis Leathers with Thiokol liquid polymers, under controlled conditions, Chicago Rawhide offers a full range of Conpor sealing and packing materials to meet a wide variety of applications,

conpor



The efficiency of *Conpor* impregnations under high pressure, as compared to ordinary wax fillers, is evidenced in the left chart; the 1000-hour test, at



right, shows consistency of leakage protection in Conpor shaft sealing. The temperature range of Conpor efficiency is from 250° F. to —70° F.

conpor

- Complete leakage control in lubricant, solvent, hydraulic, and pneumatic applications.
- A stable material, with broad resistance factors, that eliminates all the faults of previous fillers.
- Many times the service life of previous leather sealing and packing materials.
- Better lubrication control at points of friction.
- Less shaft scoring from oil seals.
- Designing for lower torque and less waste of horsepower.
- Reduced original costs in most cases, and <u>always</u> greater economy in service.

conpor



Send for this! "Report on Conpor" gives you all the basic information on this vital new material. In addition our engineering service will be glad to work with you in developing Conpor sealing products for your own applications.

Please write to:

MR. A. S. BERENS
CHICAGO RAWHIDE MFG. CO.
920 North State • Elgin, Illinois



COMPOR IS MADE EXCLUSIVELY BY CHICAGO RAWHIDE MANUFACTURING COMPANY



YOUR OWN WATER SUPPLY

... delivered in a package

This is the way suburban and rural America often buys and installs its water supply — a complete Peerless pressure water system, all wrapped up in a package—ready to go.



FOOD MACHINERY AND CHEMICAL

Pumps are serving every household and agricultural water need — from small dwellings to the largest farm acreages.

CORPORATION

EXECUTIVE OFFICES: SAN JOSE 6, CALIFORNIA

DIVISIONS: Bolens Products • Canning Machinery • Florida • John Bean • Mechanical Foundries • Niagara Chemical • Ohio-Apex • Packing Equipment Peerless Pump • Westvaco Chemical • Buffalo Electro-Chemical Co. • • \$ UBSIDIARIES: Mowamatic Corp. • Propulsion Engine Corp. • Simplex Packaging Machinery • Sonith Industries • Stokes & Smith Co. • Oakes Manufacturing Co. • Kingsbury & Davis Machine Co. • Milwaukee Equipment Manufacturing Co.





BECCO PEROXYCEN CHEMICALS



JOHN BEAN AUTO-SERVICE EQUIPMENT



FMC CITRUS PROCESSING EQUIPMENT



SIMPLEX PACKAGING EQUIPMENT



FMC FROZEN FOOD EQUIPMENT

FIGURES OF THE WEEK

			19	23-25=10	00-
270		~			270
240		here is			240
210					210
~ ~	1953				
180					180
150	F M A	M J	7 A S	0 N	150
	§ Latest	Preceding	Month	Year	1946
Business Week Index (above)	Week	Week	Ago	Ago	Averag
Dusiness week index (above)	• *253.2	†253.5	253.2	247.2	173.
PRODUCTION					
Steel ingot production (thousands of tons)		12,149	2,011	2,215	1,28
Production of automobiles and trucks	146,479 \$46,512	\$46,725	122,863 \$44,985	138,035 \$51,097	62,88 \$17,08
Electric power output (millions of kilowatt-hours)		8,414	7,963	7,698	4,23
Crude oil and condensate production (daily av., thousands of bbls.)		6,443	6,506	6,517	4,75
Bituminous coal production (daily average, thousands of tons)	1,538	1,610	1,604	1,513	1,74
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)		78	76	82	1
Carloadings: all other (daily av., thousands of cars)		58 1+2%	58 +1%	60 +5%	+30
Business failures (Dun and Bradstreet, number)		189	131	147	
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)		396.8	414.7	420.5	311
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100)	80.2	80.8	84.9	95.3	1173
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	93.9 141.7	94.5 141.7	98.6 141.7	90.1	††75 ††76
Scrap steel composite (Iron Age, ton)	\$32.33	\$31.33	\$37.17	**\$42.00	\$20.
Copper (electrolytic, Connecticut Valley, E&MJ, lb.)	29.950€	29.905€	29.985€	24.500¢	14.04
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)		\$2.27 32.58¢	\$2.26 32.83¢	\$2.41 36.85¢	\$1.9
Wool tops (Boston, Ib.)		\$2.12	\$2.12	\$2.00	\$1.
FINANCE					
90 stocks, price index (Standard & Poor's)	187.7	186.7	182.9	193.9	135
Medium grade corporate bond yield (Baa issues, Moody's)		3.86%	3.88%	3.54%	3.05
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	21-21%	28-23%	21%	24-21%	1-1
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks		152,814	53,034	52,880	1145,8
Total loans and investments, reporting member banks		†78,901 †23,113	79,138 22,957	78,349 21,990	1172,0
U. S. gov't guaranteed obligations held, reporting member banks		31,663	31,512	33,534	
Total federal reserve credit outstanding		26,252	26,179	25,384	23,8
MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Avera
Housing starts (in thousands)September		92.0	94.0	100.8	55
	ate for "Latest	W 4''	ch coolee on	nomuned.	

^{*} Preliminary, week ended Oct. 10, 1953. * Basing pt., less broker's fee.

[†] Revised. † Estimate.

A Date for "Latest Week" on each series on request.

in BUSINESS this WEEK . . .

GENERAL BUSINESS:

STEEL SLIDES WITH A SMILE. Readjustment proves to be not too bad. Demand could hold operations as high as 90% capacity......p. 27

A PRAGMATIST FOR LABOR. James Mitchell becomes Secretary of Labor: The department's first businessman-head in history......p. 28

TOUGH ANTITRUST POLICY. Case against the two big lead companies may be a tipoff to Eisen-

hower policy: To business, it looks as rough under the Democratsp.	
FRANK LLOYD WRIGHT: AT 84, STILL FIGHTIN America's most controversial architect prepares a panoramic one-man showp.	for
PERIL POINTS: Washington starts watching trouble. Eisenhower's economic advisers are keing a close eye on the key business indicators.p.	ep-
Business Briefsp.	36

BUSINESS ABROAD:

HONG KONG: TOO BUSY TO BE FRIGHTENED. Behind the myths and the rumors, there's an oasis of political and financial stability....p. 164 WILL WOOL TARIFF GO UP? Eisenhower's Tariff Commission faces a critical, far-reaching decision.p. 166 BRITISH GUIANA BACKFIRES.p. 168

CANADA:

COMMODITIES:

WHY TIN TAKES A TUMBLE. Desperately short during the war, the market is now glutted again..p. 148 COST OF COFFEE boosted by July frost in Brazil, may be headed downwardp. 152

COMPANIES:

ISBRANDTSEN: TURMOIL'S CHILD.
A shipping line of the old school bucks its industry, the weather, and a government or two.....p. 114
FOR OTIS: MORE ELECTRONICS.
Elevator maker marks hundredth year by acquiring electronics subsidiaryp. 119

FINANCE:

DIM FUTURE DEPRESSES RAIL STOCKS. Why market prices have declined in road's top year...p. 62
THE CASH TO BUILD TOLL ROADS.

	P	age
Business Outlook		17
Washington Outlook		39
International Outlook		161
Personal Business		183
The Trend		200
Figures of the Week		23
Local Business		156
Readers Report		8

Total loans to superhighway builders may soon reach \$5-billion....p. 70

INDUSTRIES:

A BOOM PUTS AIRLINES IN A SQUEEZE. More passengers at tourist rates give some carriers a problem.....p. 104

BASEBALL SHIFTS AREN'T OVER YET. Further city changes in the majors may not be so easy or so

profitable as for the Braves...p. 110

LABOR:

WHAT LEWIS WILL DEMAND. Conservative UMW bid likely...p. 172
MINIMUM WAGES on federal contract jobs are one of the new Labor Secretary's first big headaches. p. 173
PRESSING FOR PIGGY BACK. Railroaders see more jobs in hauling truck trailers on flat cars...p. 174
JOINT ACTION in aircraft bargaining gets a trial run.....p. 175
KAISER CONTRACT with UAW is revamped with employment cut. p. 178

MANAGEMENT:

TRAINING AN OLD FIRM IN NEW BUSINESS TACTICS (cover). The Townsend Co. changes direction under modern management....p. 122
NEW WRINKLE in employee stock

NEW WRINKLE in employee stock purchase offered by Kodak...p. 126

MARKETING:

ADVERTISING: MORE MONEY, NEW IDEAS. Biggest budgets and growing competition bring fresh techniques to Madison Ave.....p. 44
FTC IS STILL HARDBOILED...p. 50
TRADING STAMPS start supermarket war in Denver, face legal test in Iowa......p. 54
BETTER SHOWING. Macy's profits up 75%.......p. 56

THE MARKETS:

NOW, WILL THE TREND SHIFT? Wall Street sees non-durables taking over from capital goods as markets "best buys"p. 170

PRODUCTION:

REGIONS:

HUNT FOR UNDERSEA OIL PERKS UP DESPITE HAZARDS.....p. 190

TOP JOBS:

LIAISON MAN AT THE TOP. What's behind advertising a new car? J. Widman Bertch manages the Plymouth account at A. W. Ayer.....p. 92

WHAT IT'S ABOUT:

DEBT: KEY TO HOME BUILDING. A look at the workings of the home mortgage market.....p. 186



New twist on old idea makes G-E fluorescent lamps last longer

NE of the most important materials in a fluorescent lamp is the little bit of chemical at each end of the tube. The current flows through it, electrons flow out, and the lamp starts to glow.

The old idea was to hold the chemical on a double-twisted wire coil. General Electric's new idea was to go that one better: give the wire a *triple* twist. This not only holds more chemical, it also holds it longer.

The result of course is longer lamp life and more light for your money.

General Electric's triple coil is used in G-E slimline and other G-E instant-start lamps. Just one more example of why...

You can expect
the best value from
General Electric
fluorescent lamps

You can put your confidence in-



CROWN SPRA-TAINER: Does It again!



from every angle . . .

This Mist-ifying Magic by Helena Rubinstein Holds Milady's Hair-Do

You s-p-r-a-y it . . . and a fine, fragrant, non-sticky mist bedews your hair with subtle restraint. Holds your setting come wind, humidity, or ocean spray. Controls waves and curls after permanents. Spray on damp hair before setting. Between settings, spray after combing to keep hair-do perfect.

HAIR SPRAY is a pressure product created by HELENA RUBINSTEIN, INC.
It's packed in SPRA-TAINER, world's original
and leading lightweight propulsion can created by CROWN.

Though imitated, SPRA-TAINER alone provides the dependable protection of seamless construction, and the sales impetus of distinctive "Modern Design."

Another Familiar Helena Rubinstein Product in Crown SPRA-TAINER

Hair Spra

Helena Rubit

If you make a product that comes in a can, you'll be giving it an enviable advantage on the market by choosing your container from Crown's Complete Line of Finest Quality Cans.



CROWN CORK & SEAL COMPANY

Steel Slides with a Smile

The long-expected readjustment by customers and producers is on—and the industry isn't sorry.

Even with inventories shrinking, demand looks solid enough to support operations at healthy 80%-90% levels.

While some products are off sharply, others have been hit only mildly or not at all.

All of a sudden, the steel industry and its customers—have waked up to the fact that they are in the midst of the readjustment that everyone has been predicting would come sooner or later. Steel producers are pulling down their production to keep step with customers who are pulling down their steel inventories.

On the whole, the industry is more pleased about it than otherwise.

• Steel Slide—Looking back over their records of shipments, the steel mills can see that the scaling-down isn't exactly new. It began during the third quarter when the industry ran at an average rate of 93.2% of capacity, compared with a rate of 100% or better the past few years. What the average rate will be in the fourth quarter of this year no one exactly knows. But it would not be much of a surprise to see it drift down even further.

• Inventory Key—The drop in steel demand can be charged squarely to inventory reduction, according to veteran steel marketing men. They say that two or three months ago they had much more trouble trying to spell out the steel picture because they knew an inventory adjustment had to come. That made it more difficult to guess what the turn of events would be. Now that the adjustment is under way and is clearly recognized, it's easier to anticipate what lies ahead.

Steel men feel that the period of inventory readjustment may be worked out of the nation's economic system by the end of the year. During that period, they feel the demand is solid enough to support operations at "substantially full levels"—meaning somewhere in the 80% to 90% zone of operations.

· Variations-As usual, the steel pic-

ture cannot be seen in one glimpse. There are too many products involved. Some steel products are off sharply at the present time. Others are mildly off, and there are still a few fields where demand exceeds available supply.

An example of the first situation is timplate. It's beginning to assume its traditional seasonal pattern of declining demand toward the end of the year. As a result, steel men say that timplate production will be reduced from the third quarter to the fourth quarter more than any other major steel product. There are pretty sound estimates that timplate will be cranked out at a 70% to 75% rate in the last three months of 1953. The dip is showing all over the map, too. For example, U.S. Steel Corp. produces timplate in five places and all are operating at a lower rate today.

But at the same time, in those same locations, basic steel production is running much higher. That's because the slabs are being diverted from the tinplate mills to galvanizing lines or to hot and cold sheet reduction mills.

Alloy steels have been off for four or five months. Steel men say the market does not seem to be any worse now than it has been in recent months. In fact, they are hoping that alloy business will get a lift when the government restrictions on aickel are lifted Nov. 1. This would open the door for a lot of selling of nickel-bearing stainless steels, which many users prefer to other alloy types.

Demand for wire products has been off for quite a few months. Wire was probably one of the first steel products to return to a seasonal marketing pattern, having reached that stage about a year ago. But steel that had been going through the rod mill on the way to the wire-drawing machines has been going instead through the bar mill to meet the terrific demand for bar stock.

• Bright Side—Steel men are actually viewing current operations with smiles on their faces. Sure, they agree, the production rate is not so spectacular as it has been in the past. But most of them are not sorry to see the day past when the buying and selling of conversion steel was so popular. Many marginal conversion facilities are not operating today. Buyers of steel are glad to be able to get all of their steel at mill prices instead of paying premiums that sometimes doubled the list price.

Best indication of what has happened to the conversion business is the decline in steel production in electric furnaces. During the third quarter, electric furnaces operated at 70.4% of capacity, and in the last month, September, were down to a 65% rate. That's because carbon steel ingots for conversion purposes were no longer being made in the electric furnaces.

Edward L. Ryerson, chairman of the executive committee of Inland Steel Co., said last week that industry veterans were amused to hear less experienced steel men bemoaning the fact that operating rates had dropped to 95% of capacity. He remarked that there were many years when 80% operations were considered good. Anything around 90% of capacity is healthier than the 100% to 110% levels that had been maintained in recent years, he said.

• Auto Cutbacks—Steel producers get a little uneasy, however, when news of mill layoffs gets a big play in daily newspapers. Last week Great Lakes Steel Corp., a subsidiary of National Steel Corp., laid off 600 employees. This is the company that supplies about 35% of the automobile industry's cold rolled steel. Great Lakes issued a prim statement that the layoff is "due to the current adjustment in inventory and model changes by our customers. Our operation is expected to be resumed within two or three weeks."

The statement left a lot unsaid. Model changeovers may cause steel mills to slow down sometimes. But Great Lakes didn't lay off employees for model changeovers a year ago. The Great Lakes layoff did shed some more light on the inventory situation.

The men laid off worked in the merchant mill, which makes steel specialty items such as bumpers, door frames, wheels. Great Lakes' major production—steel for bodies—was not affected. The company now has an annual capacity, according to the American Iron & Steel Institute, of 3,150,000 ingot tons and is expanding to a capacity of 3,600,000 tons by next Jan. 1. It certainly has no great fears of a decreasing demand from the auto industry's cold rolled steel demands.

In fact, Great Lakes, according to auto trade reports, would be the last to feel any substantial lowering of auto demand. During the days of steel scarcity it had to turn down many would-be local customers. Consequently they had to place their orders far afield. They would be happy to do business with Great Lakes, if the steel company just gave them a nod.

As long ago as July, some of the more astute auto industry buyers saw steel coming into longer supply and started tightening up. Those that didn't, and had been pyramiding orders, were mainly responsible for what happened last week. Some of these companies quickly got into a bind when new model production was delayed by last summer's tool and die strike. They had ordered steel on the old scarcity basis. Now their new models, instead of being on the assembly lines and consuming the steel ordered a month or more ago, have only begun to go into production. These companies found themselves almost engulfed with steel. That's why they cut back orders.

That's why they cut back orders.

• Independents' Gain—While the feeling around Detroit is that cutbacks in steel orders came almost 100% from the independents, a freer supply of steel is going to benefit the independents relatively more than it will the Big Three—General Motors, Ford and Chrysler. During the panic days in steel, the Big Three fared better. They got a more attentive ear from the steel companies than did the independents because they had a preferred customer status and had kept contacts alive in war years. They jumped into conversion deal more quickly. They helped steel mills finance needed expansion.

Now, at least one independent expects a change. Its purchasing director hopes that his company can establish permanent relations with steel producers so, if another steel shortage ever develops, he will be accepted as a long-time steady customer.

• Nutshell—It's all summed up by the steel expert in one of the major companies: "The boys on both sides (steel and autos) have to realize we're back to a prewar situation. There's going to be more bargaining."



JAMES P. MITCHELL moves into Cabinet post as Eisenhower picks . . .

A Pragmatist for Labor

New Secretary of Labor is a professional labor relations man trained in putting the stress on workable solutions. On the whole, labor likes his looks.

James Peter Mitchell, the new Secretary of Labor named by President Eisenhower last week, is a professional labor relations man who comes out of the department store business.

Not only is he the first businessman to hold the Labor portfolio in the Cabinet since the office was established in 1913 (page 200); his appointment is the highest recognition yet accorded the relatively new labor relations specialty in the management field.

• A Pro-Mitchell is one of that comparatively small group of real pros who, in the last two decades, have taken important positions on the management teams of large enterprises to handle the job of formulating industrial policies on unions, labor costs, and personnel—and to see they're executed.

For operational purposes these men are neither radical nor reactionary, liberal nor conservative. They are pragmatists. Their interest is not in any ideology but in the practical question of what will work and work well for all concerned.

This does not mean that Mitchell is pragmatic to the point of ignoring principles. It was because he thought a principle was at stake that he left his job as vice-president of Macy's in 1946 and moved to Bloomingdale's. A more opportunistic man would have made some accommodation and held onto the big job with a bigger future that Mitchell put behind him after a fundamental disagreement with the management. At Bloomingdale's he worked smoothly and well with his fellow executives and soon got entered in the book of Fred Lazarus, Jr.-president of Federated Dept. Stores, Inc.

• The Man—A big, burly, bearlike figure of a man in his prime, Mitchell has a dry sense of humor and a taste for earthy pleasures and earthy company. He has a better time standing

with a few friends at a men's bar than at a cocktail party. With working men and labor leaders who have not acquired a patina of slickness or veneer of intellectuality he is an almost immediate hit. He looks as if he comes from their side of the tracks—which happens to be the case—and wouldn't want to take the trouble to disguise it. His instincts are human rather than corporate. And if he had to slip into one or the other family portrait, he would look, and probably feel, more at home with the Meanys than the Reuthers.

· Labor Reaction-Yet it was Walter Reuther of CIO, not George Meany of AFL, who found some kind words to say about his appointment. The CIO could afford it. The AFL was still stuck in supporting Martin Durkin against the world and in feeling it had to find something to criticize in anyone Eisenhower might name as Durkin's successor. As one AFL official who knows Mitchell, and who was personally hurt by not being able to hail his appointment publicly, put it, "If the President had named the most prominent building craftsman of all time, the Carpenter of Nazareth, the AFL would have to say he wasn't up to Marty Durkin."

McCreery's End Brings Tears but No Jitters

James McCreery & Co. is a midtown Manhattan department store with a venerable past but practically no future at all. Last week its owner, Associated Dry Goods Corp., announced that it had sold the building and equipment to the ubiquitous real estate firm of Webb & Knapp, Inc. (page 36), and that the store would close its doors sometime after Christmas. There's a possibility that Ohrbach's Inc., the downtown specialty shop, may then take it over.

At any other time, the demise of this 116-year-old store might have thrown a scare into the nation's department store operators. They have enough long-term worries to make them jittery (BW-Jan.24'53,p43). But things are looking up a little in January-June figures-sales up 3% over 1952, operating profit 1.3% of sales against 0.8% last year.

Besides McCreery's had a special problem of location. It fronts on both 34st St.—which has Macy's—and Fifth Ave.—opposite fashionable B. Altman & Co. and a few blocks from another Associated unit, Lord & Taylor. Women's Wear Daily quotes one executive as saying, "We never knew which side of the bed to get out of in the morning—Fifth Ave. or 34th St."

Tough Antitrust Policy

That's the line the Administration seems to be taking in the monopoly suit it has just filed against American Smelting & Refining and St. Joseph Lead.

The Administration has filed its first big antitrust suit. And to the businessmen on the receiving end, it looks pretty much like what they got under the Democrats.

The suit accuses American Smelting & Refining Co. and the St. Joseph Lead Co. of monopolizing the country's lead business. The government says that by means of long-term contracts with each other, the two companies control about two-thirds of the lead sold.

• For the Record—Earlier antitrust actions—notably the judgment against General Electric and other companies for monopolizing the lamp industry (BW—Oct.10'53,p34)—have been the end product of cases filed and "guilty" verdicts won by the Democrats. The case against the lead companies was investigated and partially prepared by the Democrats. But it was selected for filing by Attorney General Herbert Brownell and antitrust chief Stanley Barnes as a key move in establishing the Administration's antitrust record.

This is apparent from the fanfare with which the case was announced. A couple of days after the suit was filed in New York, Brownell summed up the record of antitrust actions during the previous week. On his list were victories against 14 building materials supply companies in Cleveland, GE lamp ruling, and a judgment against Bendix and other companies in a case involving monopoly of power brakes.

involving monopoly of power brakes.

Brownell's touting of the division's record was apparently designed to counteract political criticism that his antitrust study committee—just getting started—will lead to a weakening of antitrust enforcement.

• Quick Action—The antitrusters say it may be two to three years before the lead case gets to trial because of the crowded court docket. But the current emphasis on settling cases speedily, through consent decrees or other means, could bring earlier settlement.

• Astonished—Industry reaction to the case has been one of bewilderment. Lead industry insiders note that there's almost no disagreement on the main facts—that, in effect, the two companies are now charged with violating the law by doing the things they have been doing openly for the past 30 years. The charges are based largely on buyer-seller contracts between AS&R and St. Joe that began back in the 1920s.

One obvious comment: "The Democrats had the industry under observation all these years—that's certain—and never filed a suit. Now out of the blue the businessmen's administration says we've been violating the law all along."

• The Case—The antitrust complaint says that AS&R refines about 60% of the primary lead in the U.S. and with its imports controls about 57% of the U.S. supply. St. Joe, the complaint notes, markets about 26% of the available primary lead.

The antitrusters say that by 1920 St. Joe had become the largest lead mining company and second only to AS&R in smelting, refining, and marketing.

Since 1920, says the antitrust division, the two companies have combined and conspired to suppress and limit competition, control production, fix U.S. and world prices, and to maintain their monopoly of the industry.

The latest contract cited in the complaint is the one signed in November, 1951, to become effective next January, the date the 1923 basic agreement of the two companies expires. The extender, the antitrusters say, continues their relationship another five years.

The Justice Dept. says that the contracts and agreements reached between AS&R and St. Joe—and between St. Joe and Bunker Hill, third largest mining company—on their face pretty much spell out the violation of the Sherman Act.

• Competition—The department asks that the contracts and agreements be ended, and that the companies be divested of whatever properties are "necessary to restore and maintain free and unfettered competition."

The case differs from earlier "implied conspiracy" cases like those against the big four meat packers in that any "concert of action" was done in black and white, on regular contracts.

On the other hand, the percentage of the market held by the two companies brings them well within the target area defined by court decisions on whether bigness per se is illegal. In the Columbia Steel case just after the war (1948), the Supreme Court found that U. S. Steel's 33% of the steel production should not stand in the way of its acquiring additional capacity. At the other extreme, Judge Hand, in the Aluminum Co. of America case, came close to saving that possession of two-thirds to 90% of an industry could be a monopoly, and possession of 90% or more is almost certainly a monopoly on the face of it.



"THIS WAS THE FIRST zoned house." Frank Lloyd Wright points to a model of the famous Herbert Johnson house in Racine, Wis., built in 1937. Each wing has a function—one for children, one for guests, one for living room, one for kitchen. This is a fine

example of Wright's "organic" architecture, which characterizes the Wright retrospective show—Sixty Years of Living Architecture—that opens next week at the Solomon R. Guggenheim Museum in New York.

Frank Lloyd Wright: At 84,



THE EXHIBIT

contains a full-size four-room example of a Wright, one-story Prairie house. Models



show the sweep of his work from the somewhat formal San Francisco News building-advanced for 1912-to . . .



"I DESIGNED the UN Building in 1893." Wright points to an early design for the facade (never built) of a Chicago office building. It has a strong resemblance to the slab-like UN Building in New York. But Wright now detests it. He calls it a mere facade. "My buildings have to go through and button at the back."

Still Fighting



... the projected free-form Guggenheim museum, which is pretty advanced for 1953.

The sheer strength of Frank Lloyd Wright's likes and dislikes has been one of the great forces in modern architecture. Wright hates the "box," which he identifies with the so-called International School that produced the UN building. He loves "organic" architecture, which he has called "free expression in building." This love affair has changed architecture throughout the world in a way only just being understood.

Wright's acerbity, particularly in the public prints, has diminished only slightly over the years. He readily concedes that businessmen were among the first to "see my work and build it." But in the main he finds their influence on architecture baneful. He thinks the best thing they are doing in this line right now is decentralizing their plants, building them in the green countryside.



"Businessmen . . .



... do better by architecture ...

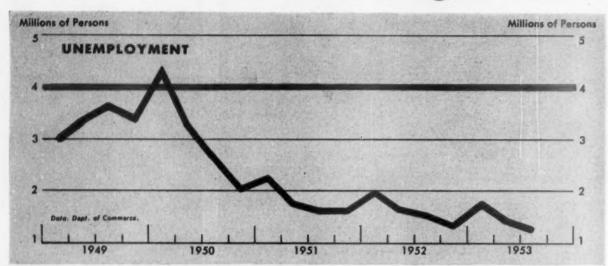


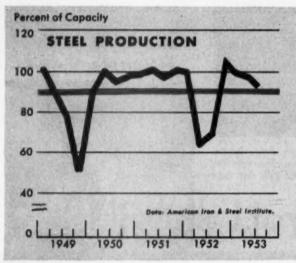
. . . in their factories . . .

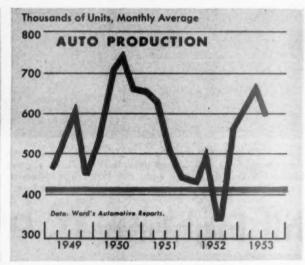


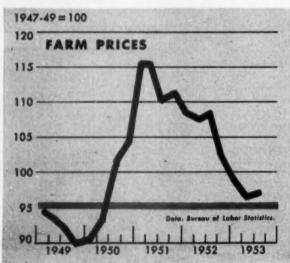
. than in their houses."

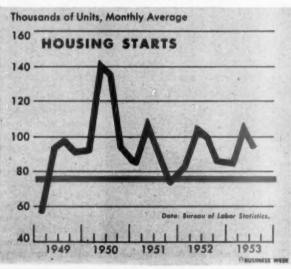
Peril Points: Washington Starts











Watching for Signs of Trouble

Economic spokesmen of the Eisenhower Administration have started looking at the business picture in a different way lately. Until a few weeks ago, they saw inflation as the great danger that still threatened the U.S. economy. Now they are giving equal attention to the weaknesses that might add up to a re-

And so they are putting the spotlight on some of the key business indicators that they think will flash an alarm signal if business takes a serious turn down-

ward (charts, opposite page).

The red line on each chart shows about where the economists think the peril point lies-the point where the Administration would have to modify its policies to take account of the weak-

ness in that particular area.

Actually, only farm prices are near that point now. Steel is fairly close, but the steel industry isn't alarmed (page 27). Housing starts and auto production are comfortably above the line. Unemployment, the most important of all the indicators, is still miles away from the danger zone.

· Adjustments-The shift in the Administration line amounts to an admission that the boom has passed its peak, as far as Washington is concerned. But it doesn't mean the Administration has turned pessimistic all of a sudden. On the contrary, it's part of a carefully thought-out plan to help business adjust to the new situation-to steer a course between foolishly optimistic talk on one hand, and getting panicky about the weak spot on the other.

Here's their reasoning. Business is in a stage of nervous wait-and-see. During this period it would be easy to talk ourselves into a depression. One way to avoid that-and at the same time to prepare any needed defenses-is to focus on the question of just how far or how

near we are to the peril points.

• How It Goes-The new Administration line works out like this:

• Yes, there are soft spots in business-to pretend otherwise would be foolish and reckless.

· But so far the weak spots are isolated. There's no sign of a general approach to peril points that would indicate a broad downturn.

• Until there is, the Administration will sit tight with present policies.

Eisenhower's three top economic spokesmen have all expressed the new line in public-Secretary of the Treasury George M. Humphrey, Secretary of Commerce Sinclair Weeks, and Under Secretary of Commerce Walter Williams

• From the Top-The shift is a team play. It stems directly from the White House, and reflects Eisenhower's concern with unified economic staff work. White House officials are urging that the line be adopted by Administration

speakers from top to bottom.

• What It Means—The new line means the Administration doesn't see any reason to launch full-dress antidepression plans so long as soft spots remain as they are-scattered and minor. So the Administration will try tightrope walking from now to the end of the year at least. Then it hopes the President's annual state-of-the-union message, combined with whatever tax law changes are recommended, will act as a psychological stimulant, if one is needed.

Top business thinkers in the Administration are willing to let things rock along as they are, simply because they don't see serious troubles ahead. Actually, they are much more confident about the business future than the new

line allows them to say.

Just the same, there is a great deal of earnest conversation behind this calm surface. There is little dispute over what to do in case of a broad downturn. There is always dispute over when to

I. The Points to Watch

The five main peril points shown in the charts form in the minds of some Eisenhower advisers a rough sort of guide as to when the present phase of calm watchfulness should be replaced by direct action to stimulate business.

For the present, farm prices are the single area where the Administration shows any real concern. There's a difference here from the other indicators. For steel, autos, and housing, declines are more or less expected and accounted for. But farm prices are considered to be already at the warning line. Both for economic and political reasons, Administration leaders hope they've seen the worst of the farm price slide-off.

These indicators don't represent official decisions, of course. And if any one indicator should cross the warning line, it would not throw the Administration into a panic. But a broad move-ment past these bench marks would certainly put an end to the present phase of confident watchfulness, and bring positive stimulants into play.

II. Defense in Depth

To counteract a downturn, Administration experts like to talk about a defense in depth.

The first line is easier credit. Actually, this phase began last June when the Federal Reserve lowered reserve requirements for banks. It is continuing weekly, as the Fed buys securities on the open market, and thus broadens the credit potential of the banking

You see results almost daily: lowered interest rates on Treasury offerings. higher prices for bonds, and an announcement by finance companies of a cut in interest on commercial paper, the first in about two years.

Federal Reserve officials like to argue that the easier money supply stems more from a letup in demand than from their own acts. Whatever the reason, there is great satisfaction in the Administration over the timing of the Fed's change in bank reserve requirements. They think it came early enough to remove tight money, at least, from the present worries of businessmen.

• Taxes—The second line of defense against a downturn is taxes. The death of the excess profits tax and a 2% to 10% reduction in personal income taxes next Jan. 1 are taken for granted. Beyond that, the Administration is waiting to see what happens to the soft spots

in business.

The excess profits tax and personal income tax reductions add up to a \$5billion revenue loss. In addition, mem-bers of the House Ways and Means committee believe the Treasury will not oppose an additional \$1.5-billion to \$2-billion reduction. This would be spread out among such items as relief for working mothers, lower rates on the earnings of minors over \$600, and possibly a small credit on income from dividends. They're not the powerful stimulators that would be written into a tax bill designed specifically to check a downturn.

The tax picture is clouded by lack of agreement between the Treasury and Rep. Daniel A. Reed, chairman of the Ways and Means Committee. Reed is now having a bill drawn up that may include much more tax relief than Humphrey will stand for. One plan is a flat 50% reduction on all excises, just as they stand now. This would cost the Treasury \$2.8-billion.

Another approach would be to lower the heaviest of the present excises, and spread a 5% or 8% excise at the manufacturer's level over such goods as clothing and household furnishings, which

are not now taxed.

· Public Works-Beyond taxes, the third line of defense is public works. There's little talk of this-mostly because the Administration doesn't think they will be needed in any business situation likely to develop next year. This is another reflection of Administration confidence in the basic situation. There

are also signs that public works will be employed only after a fairly sharp dip in business-probably not in the early

stages.
That leaves easier credit, next year's automatic tax cuts, and a few additional scattered tax reductions, as the Administration's working tools for 1954. Right now, Eisenhower's advisers think nothing more will be needed.

High Court Rejections Affect Tax, Trade Laws

The Supreme Court of the United States got down to its job in earnest this week. It began the process-which continues the rest of the term-of accepting or rejecting the hundreds of cases appealed. Only a few will be ar-

gued and ultimately decided.

At this stage of the game the court naturally isn't handing down decisions. But by rejecting a case it does, in effect, uphold the rulings made by

lower federal or state courts.

· Rejections-The most important rejection announced Monday leaves in effect Georgia state court rulings throwing out that state's fair trade law: But the Supreme Court has not yet announced whether it will consider another retail price maintenance casebrought by John Schwegmann attacking the constitutionality of the federal Mc-Guire act.

The effect of other rejections is to uphold these lower court decisions: a Pennsylvania Supreme Court ruling that the Korean "war" was not a "war as far as insurance liability clauses in that state are concerned; a Missouri ruling invalidating a privilege tax on interstate gas companies with lines in that state; lower federal court ruling admitting Negroes to municipal pools

in Kansas City

Rejections also upheld in effect the constitutionality of a business license required of newspapers in Corona, Cal.; validity of a West Virginia law forbidding use of diesel locomotives in coal mines; and National Labor Relations Board authority to enforce Taft-Hartley unfair practice provision in the construction industry.

• To Be Heard-Some of the cases of interest to businessmen that will be heard and decided by the court are:

· Whether the Federal Communications Commission can ban network radio and TV giveaway programs.

· Whether Texas can tax the business of gathering natural gas later sold to interstate pipeline companies.

 Whether the Civil Aeronautics Board must offset domestic mail-route profits of an airline against subsidization of its international routes.

· Whether Maryland can tax outof-state sales to Marylanders.



Down through a Moscow Street . . .



into the Kremlin's Interior and



. A Slum Goes U.S. Student's Camera

Last year's feature editor of the University of Michigan daily, 22-year-old Zander Hollander of Brooklyn, got the jump on the free world press behind the Iron Curtain a couple of weeks ago. Moscow saw fit not only to let him make a trip to Russia, but to snap some previously shielded spots-including a slum near the American Embassy-in the city.

Open for business!

We picked something that says "wide open" to tell you about Sinclair's new "Big Inch" Pipe Line—now open for business.

Recently dedicated, this great new oilway travels 666 miles crossing four major rivers in its course from Cushing, Oklahoma, to the East Chicago, Indiana, refinery. The "Big Inch", a combination 22" and 24" line, is capable of moving 280,000 barrels of crude oil daily between Cushing and Salisbury, Missouri, and 150,000 barrels daily from Salisbury into East Chicago. This represents a marked increase in Sinclair's capacity to deliver oil from one of its most productive areas.

The new line completely replaces a multiple system of small-diameter lines which the company has operated over approximately the same route. It insures a steady supply of crude oil to two important Sinclair refineries.

Sinclair's new "Big Inch" is one of a number of construction projects designed to step-up the efficiency of the company's operations and is another important part of Sinclair's plan for balanced progress in transportation, production, manufacturing, and sales.



SINCLAIR OIL CORPORATION . 600 FIFTH AVENUE . NEW YORK 20, N. Y.

NATIONAL TECHNICAL CENTER

Building for your future...

Newest physical testing machinery . . . latest electronic test devices . . . a new building designed for their efficient use . . . railroad car impact test tracks—that's the new National Technical Center where continued tests and research on castings and devices will be carried out.

The Technical Center's facilities are available to you manufacturers and railroaders who seek new facts and data on the strength of castings used in your products.





Cleveland 6, Ohio

BUSINESS BRIEFS

Industrial Brownhoist battle continues merrily (BW-Oct.3'53,p56). Pennsylvania Coke & Coal Corp., which controls 51% of Brownhoist stock and wants to absorb the company, won a partial victory when stockholders voted to permit the board to fire officers by simple majority vote. But the old management scored by demonstrating that it had enough stock to block the merger.

Airline doings: TWA will start the first nonstop transcontinental flights Monday, an overnight sleeper service . . . Three lines—Northwest, Trans-Canada, and Swissair—plan to carry coach and first-class passengers in the same planes, but in segregated quarters.

\$52-million was the price that brought New York's Chrysler Building, Chrysler Building East, and Graybar Building into the expanding real-estate portfolio of Webb & Knapp, Inc. Graysler Corp., which belongs to the banking firm of Lazard Freres, was associated in the purchase. Webb & Knapp says it will spend \$10-million in improving the buildings.

Transit bait: A special low fare for shoppers is being tested by the Chicago Transit Authority. Adults who board CTA buses and cars between 9:30 a.m. and 1:30 p.m. will pay a dime instead of the regular 20¢ fare. The idea is to increase riding in the off-peak hours.

U.S. sugar quota is up again. The Agriculture Dept. has just added 100,000 tons to the quota for 1953, boosting it to 8.1-million tons raw value. Cuba gets the lion's share of the increase, 96,000 tons.

Latest flare-up in gasoline wars is in Wilkes-Barre, Pa. After three weeks of price cutting, stations are selling regular gas for as low as 14¢ a gal. In New Jersey, dealers have asked the Senate Small Business Committee to investigate price cutting (BW-Oct.3'53,p.36).

"Gathering tax" levied by Texas on natural gas bought for export from the state will be tested in the U.S. Supreme Court. Michigan-Wisconsin Pipe Line Co. and Panhandle Eastern Pipe Line Co. have challenged the constitutionality of the tax. The High Court has agreed to hear the two test cases.

Steel scrap prices have begun to climb after a long period of decline. Pitts-burgh reported one 10,000-ton sale last week at \$4 a ton above the recent market.

More than a Want-Ad . . . a Warning

12 THINGS YOU CAN DO ABOUT:

The Dangerous Shortage of Engineers

The present and increasing scarcity of engineering manpower is a critical threat to both our national security and our national economy. Because Russia is outdistancing us in the training of technical mindpower, America and American management face a serious problem.

In 1951, our colleges produced 38,000 graduate engineers to fill 60,000 jobs, and 19,000 were siphoned off to the military. In 1952, the number of graduating engineers had shrunk to 27,000- to 23,000 in 1953- and to an expectation of 17,000 in 1954.

More than 5,000 companies are being slowed down by the need for an additional 50,000 engineers. More than 4,000 firms are actively recruiting on college campuses. Within three years there will be about 60% fewer engineers than our economy will need.

Here are 12 things you can do to alleviate this dangerous shortage, and help your company and your country to weather the crisis:

Toward More Efficient Utilization of Manpower

- Speed up promotions of engineers to positions of maximum responsibility. Full utilization demands rapid upgrading of young talent.
- Run time studies of various engineering duties, in order to eliminate waste motions and to reassign non-critical work to junior aides. Testing, production scheduling, calculating, layout, and many drafting jobs are sub-professional.
- 3. Shorten and sharpen training programs.

- 4. Check your planning and communications, and improve them so as to avoid duplication and to pinpoint responsibility.
- 5. Pay close attention to the procedures outlined in the Engineering Manpower Commission Bulletin No. 1 on Selective Service deferments.*
- 6. Consult the Engineering Manpower Commission on any and all problems relating to the more efficient utilization of your engineering manpower. EMC's function is to give counsel and aid where possible.

Toward Increasing Your Engineering Manpower

- 1. Employ engineering students for part-time work, and consider methods for integrating part-time help into the full-time job.
- 2. Employ more liberal arts and business administration graduates for semi-technical occupations.
- 3. Launch training programs for non-engineering graduates, eventually enlisting them as "Engineers' Assistants" to handle semi-technical work needlessly being done by professional personnel. Also, make increasing use of secretaries for the handling of many tasks now performed by engineers.
- 4. Offer extensions of the "statutory" retirement age to older engineers and scientists who have recently retired or who are about to retire.
- 5. Employ outside consulting firms for special projects wherever practicable, and make full use of the services of suppliers' sales engineers.
- Sell the future of engineering to your own community, from the home and High School to the College level. That future is big for youth, for you and for America.



In the critical field of precision machine tool engineering, the specialized skills and technical facilities of Jones & Lamson are serving the top production management of American industry—helping to increase productivity with both mindpower and machines.

* This bulletin is available from Dept. B, EMC headquarters. 29 West 39th Street, New York 18, N. Y.

JONES & LAMSON MACHINE COMPANY
Dept. 710, 503 Clinton Street

Springfield, Vermont, U. S. A.

Turret Lathes - Fay Automatic Lathes - Thread Grinders - Optical Comparators - Threading Dies & Chasers



Jolly Jeff, the laughing man, was broad of beam and girth, an overwhelming monument of merriment and mirth. "I've heard about you Statler folks," the rotund funster said. "Suppose you've got a room that's got an extra-sturdy bed?"



2 They showed him to a room which had a sturdy bed indeed. For Statler rooms are all designed to answer every need. He looked around and chuckled, "Here's a friendly kind of place—it's clean and bright and cheerful, and there's lots of extra space.



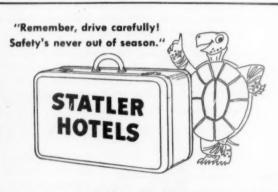
3 "I hope there's room for all of me," said Jeff in Statler's tub. The spacious bath had room to spare—he settled down to scrub. "There's lots of soap and soft white towels—that I'm glad to see—it takes a lot to do the job for someone built like me!



4 "This Statler food is excellent!" the gleeful gourmet cried. "Egad! What pie! I'll have some more! There's still some room inside. And after that, some more ice cream—I just can't get my fill! Why, eating at the Statler is a super-special thrill!



5 "The Statler's like a paradise! Why everything's next door. That means a lot to folks like me, for walking's quite a chore. But fat or thin or in between, you'll find the Statler's best. It's really true, just like they say—you really are a guest!"



STATLER HOTELS: NEW YORK . BOSTON . BUFFALO . DETROIT

CLEVELAND . ST. LOUIS . WASHINGTON . LOS ANGELES

ANOTHER GREAT NEW STATLER — HARTFORD

Do you owe yourself a treat? Make it a weekend at the Statler!

WASHINGTON OUTLOOK

WASHINGTON BUREAU OCT. 17, 1953



Take a look at what's happening down on the farm, then you will see why Washington has such a case of political jitters.

The farmer is feeling poor—the poorest, in fact, in over 10 years. Use the "parity ratio" as a yardstick—an index that measures prices the farmers get in terms of prices they pay. It's at 92 today. A year ago, it was 101. The average for 1951 was 107. So, it's a real recession—something long known to businesses that sell to farmers.

And now, political repercussions are setting in. In Wisconsin, in a district that has been strong Republican, and that Eisenhower carried, a Democrat licked a Republican in a special Congressional election. Farmers were a big factor in this upset, which surprised the White House.

The \$64 question: Can Eisenhower hold Congressional control in the elections coming up next year? Any answer at this time is only a guess. But one thing is sure: The Wisconsin result shocked the Administration. Early analysis indicated not only that farmers switched in their voting, but that more of the labor vote ended up in the Democratic column, too. As a result, there will be policy shifts intended to hold voters in line when the 1954 Congressional elections roll around.

Farm price supports will be pegged at 90% of parity. The Administration doesn't like the prospect. It prefers a flexible support system, with pegs moving up and down in relation to supply. But the way the winds are blowing now, the Administration won't have much of a choice. If it doesn't change, and back high-level supports, then Congress will force the supports.

Agriculture Secretary Benson may have to go. He dislikes rigid supports and has made no bones about it. He hasn't pulled the props from under any prices yet. But farmers fear that he will. That, at least, is the interpretation Eisenhower advisers are placing on the Wisconsin vote.

Labor is involved, too. There's some unemployment in the Wisconsin district. And on top of it, you must consider Martin Durkin's resignation as Labor Secretary. That probably was a factor.

Eisenhower will back Taft-Hartley law changes. He may even go further than he had planned in meeting union demands. But odds still are that the law won't be changed, not in major respects, next year.

New Labor Secretary James Mitchell has his hands full. He will get better backing (page 28) from Eisenhower and the Cabinet than Durkin ever got. Politics assures that. His problem will be selling Congress, where conservatives control.

Behind postponement of the balanced budget goal are two key decisions by Eisenhower that bear directly on the business outlook:

Defense spending will remain higher than planned. The extra for fiscal 1955 may not exceed \$1-billion—the initial step-up in defense against the A-and-H bombs. But it's the first real break in the economy line.

Revenue lost, by tax cuts coming Jan. 1 won't be made up. Fact is, the Administration has about given up hope of a big, offsetting tax hike.

Add it up, and the prospect is for more deficits. The goal had been to balance the budget next year, fiscal 1955. But both the President and his budget director now are saying it can't be done. A balance in 1956 is

WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU OCT. 17, 1953

doubtful. Meantime, deficits will go on. The fact that the government will be spending more than it takes in will tend to cushion and delay the business adjustments that are ahead.

Other big decisions are ahead. Congress comes back in 10 more weeks, on Jan. 3. Issues are piling high on Eisenhower's desk. The next session will be a big factor in whether the GOP can hang onto control in Congress (it's outvoted in the Senate today, counting Wayne Morse as an independent). It will write the record for the 1954 Congressional elections, which will determine whether Eisenhower is a "minority President" from then on.

The Administration's tax package will come early, to avoid the mistake made last year, when tax-cutters almost got the upper hand.

Rep. Dan Reed will offer his own tax bill. He is the chairman of the House Ways and Means Committee, which must originate all tax legislation. His idea is that the GOP must have a tax cut of its own—on top of the \$5-billion of relief that the Democrats scheduled when they put a termination date on the excess profits tax and the Korea (average, 10%) boost on individuals.

That puts the heat on Eisenhower. Unless he moves at the session start to replace some lost revenue with, say, more excise taxes, Reed will get the jump. What Reed wants is more liberal depreciation, allowances for working mothers, more than a \$600 parental allowance for working children, and other changes.

The social security goal: Expansion to cover everyone, no matter what the job. Secretary Oveta Culp Hobby is hard at work on this. A vote next year seems unlikely. But universal coverage will come, eventually.

Tariff policy will stay on the "free trade side." Eisenhower won't junk the reciprocal agreement policy of the Democrats.

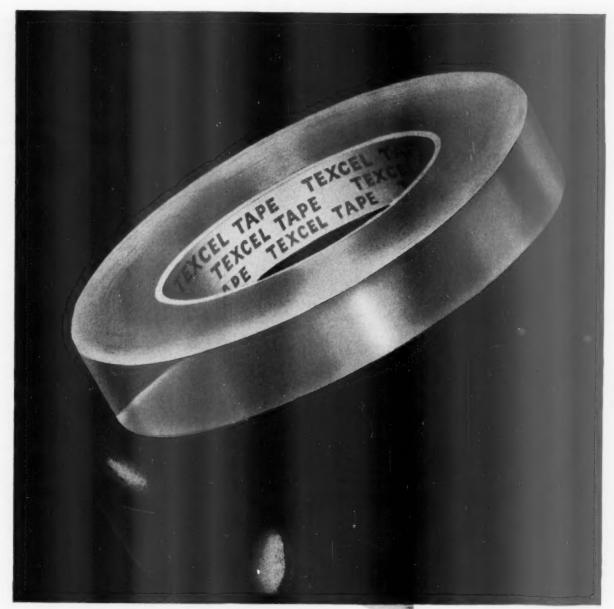
Federal-state responsibilities. Eisenhower wants to draw some lines between federal and state functions. A study commission is now at work. But the question of who is to tax seems to bar all but minor shiftings. If, say, the federal government gave up road building, left it to states, then it would also have to give up the gasoline tax. No matter who is in power, Washington will be slow to surrender revenue sources.

There's lots of sweating on foreign policy. Washington still feels that shooting won't be resumed in Korea. But it may take years to settle that "police action." Meantime, our soldiers will be serving over there. A nonaggression pact with Russia is something for the distant future. One theory is that Russia thinks she can lick us without firing a shot. The tactic is to whip the economy back and forth—inflate us with a threat of war, then deflate us with a threat of peace. It may sound farfetched. But supporters of the theory can offer persuasive evidence.

Back to politics: The new Ohio Senator, Tom Burke, gives the Democrats a Senate majority, counting Morse as independent. They won't try to take Senate control at this time. But it is a threat over the GOP.

Watch for Democratic fire to center on Eisenhower. Heretofore, it has been on men around him. But Wisconsin is taken as a sign of vulnerability. The swinging will become freer from here on in.

Contacts copyrighted under the general copyright on the Oct. 17, 1965, Issue-Business Week, 850 W. 42nd St., How York, N. Y.



Stick with Blue Tab

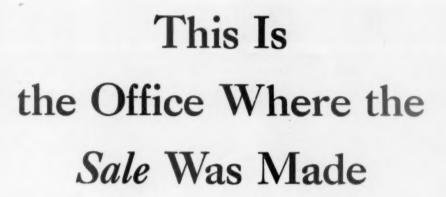
TEXCEL
CELLOPHANE TAPE

PERMACEL TAPE CORPORATION....NEW BRUNSWICK, NEW JERSEY



We sponsor this series of advertisements about the Traffic Manager and his job because we believe the Traffic Man is management's answer to better and more economical movement of material.

Chesapeake and Ohio Railway, Terminal Tower, Cleveland 1, Ohio



The contract was a juicy one and a competitive supplier was after it hammer and tongs

The factory prices of both were almost identical. And then, after Sales had done everything it could, it was the Traffic Manager who played the winning card.

Based on increasing the minimum weight per car, he thought he saw a plausible argument for a decrease in the commodity rate. The new rate would also give the railroad a slightly better return per car mile, and with carrier support he had little trouble getting his proposal for rate revision approved. His company submitted a bid FOB destination which put its delivered cost just enough below the competitor's to clinch the contract.

In the complex field of freight rates and classification a really competent traffic expert can do more than save his company plenty of money on shipping charges. He can also cooperate with other department heads to get more business, to give better service to customers and to facilitate the flow of manufacture.

Such a man may not be easy to find. If you have a man in your organization who has the capacity to grow into such responsibilities, your best bet may be to help him get the special training that the job requires. Whatever you have to do to get or train him, he will be worth many times his cost.

As one of the great carriers of merchandise freight in the country, the

Chesapeake and Ohio Railway

is vitally interested in any plan that will move more goods, more efficiently



MORE FOR TIME Advertisers opened up their purses to TV this year. The Ford anni-

versary show, with Mary Martin (left) and Ethel Merman, cost the car maker a cool \$500,000.







MORE FOR SPACE Despite TV, advertisers still azines and newspapers. And they tried a lot of different appeals, from price (left) to direct assault on the senses (center).

Advertising: More Money, New Ideas

"This is the golden age of advertising."

So said a vice-president of a New York advertising agency last week, for whom the phrase had a double meaning.

First off, he meant the flood of gold that pours through Madison Avenue as advertising budgets grow and grow. This is the biggest year that the advertising business has ever had, and this is the biggest season of the biggest year. The climate is precisely right for advertising. There's plenty of money in the country, but there are more goods than there is money. In other words, competition is pretty sharp, and what

could be better than that for advertising-as long as advertisers have the money to foot the bill?

• Brightness-Competition has brought about the second characteristic of this new Periclean age. Agencies have had to buckle down and work until the air crackles with ideas and energy. As a result, this year more than at any other time during the postwar period, the advertising business has showed signs of real creativeness and originality.

The conditions will probably continue just about right to nurture this process. A serious depression would drag advertising down with it. But a

minor setback, if there is one, should only serve to boost advertising budgets by honing the competitive edge still sharper. Walther Buchen, head of the Buchen Co., a Chicago agency, expresses this viewpoint when he figures that anything up to a 10% drop in the over-all economy will probably increase expenditures. Up to that point, he reasons, it will still seem worth-while to an advertiser to try to get some of his competitors' markets away from them.

• Big Spending-Whatever happens next year, this will be remembered as the year when the double-page spread

HOW TO OPEN THE DOOR TO PRODUCTION ECONOMY

New design approach explores production economies with plastics

A fresh approach to cost reduction, reported in a new Monsanto management study, lies in *designing* for production economy—with plastics. Thanks to this new trend in design thinking, manufacturers in many product fields are now cutting production costs by as much as 50 per cent.

Faster cycles . . . elimination of machining, painting, assembly and other finishing operations — made possible by plastics — are now prime considerations right at the conception of the product.

For the full story of how manufacturers are cutting costs with the new approach to design problems, send for your free copy of Monsanto's new management report. Just use the coupon below. Also—if you would like individual assistance with your materials problem, call on the Monsanto Technical Council—a board of experts in plastics, who will be glad to advise you on any questions related to plastics.





MONSANTO CHEMICAL COMPANY Plastics Division, Room 1231, Springfield 2. Mass.									
Please send me your report on the new approach to product design.									
Name & Title									
Company									
Address									
City, Zone, State									



3. D Business Movies mean business

Everyone sits up and takes notice when your business movies are in life-like Bolex 3-D. Says Bernard Howard, president of Academy Film Productions, leading industrial film specialists of Chicago:

... "Guests, exhibitors and competitors thronged into Stone Container's booth to see 'the first industrial 3-D film ever made.' Some 15,000 persons over a four-day period entered the booth, donned Polaroid viewers, and watched.

..."It is my personal feeling that the Bolex Stereo principle of using only one camera and one projector is the only practical method of shooting and projecting three-dimensional films for business and educational purposes. This opinion is based not only on our 3-D film for Stone Container, but on subsequent stereo films that we have shot for Sears, Roebuck & Co., Holsum Bread and other clients.

... "We are now using the new Bolex 3-D close-up lenses on current productions with much success. They are as simple to use as the basic taking lenses . . . a compliment, indeed."

Simple to take, convincing to watch...isn't that the kind of movies you want to tell your company's story? For further information, see your Bolex franchised dealer or write:

Paillard Products, Inc., 100 Sixth Ave., N.Y. 13, N.Y. Outside U.S.A. write to Paillard, S. A., Ste. Croix, Switzerland

Tell a REAL Story with



16mm Industrial Movies



Bolex Stereo System complete with Bolex H-16 DeLuxe camera, taking and projector lenses, screen, and two pairs of Polaroid glasses

Complete with Bolex Close-up Attachment (as shown)......\$783.00* *Includes F.E.T. became a regular, everyday occurrence, swelling magazines until they split their stapling. In fact, many-page advertisements in Life and other national magazines became fairly common. Furthermore, all this money poured into magazines and other media despite the fact that television continued to swallow advertising dollars in bigger gulps than ever (BW-Sep.12'53,p29).

Total expenditures on advertising are heading toward a new record this year. Eldridge Peterson, editor of Printers' Ink, has just estimated that they will hit \$7.7-billion this year, a gain of about

10% over 1952.

• The Leaders—The rise in revenue has been pretty much across the board in almost all categories of advertising. But a good share of the gains has come particularly from three areas, all of them highly competitive at this point—autos, liquor, and appliances.

• Automobiles—Detroit observers figure that this year the automotive industry will spond \$150-million on advertising as against about \$105-million last year. They arrive at this by figuring on a basis of about \$25 per car for advertising. Since the car industry keys advertising budgets to sales, you multiply by this year's sales figure—some 6-million.

With the coming of fall and the piling up of inventories of unsold cars, both new and used (BW-Oct.3'53, p29), newspapers are bulging with car advertising. As a good illustration of what heavy competition is doing to car advertising, take Plymouth. Next year it will run its first cooperative advertising, which is expected to add some \$8-million to the amount spent on advertising Plymouths each year (page 92).

 And Liquor—Liquor advertising is running full blast this fall, a direct result of the glut of whiskey and the keen competition this has created among distillers.

Schenley is spending \$5-million, in advertising and promotion, to exploit its decanter for Schenley Reserve (BW—Sep.12'53,p34).

Seagram has boosted its advertising budget of \$14-million in 1952 by about

10% this year.

Frankfort Distillers will spend \$4,-375,000 advertising Four Roses and Paul Jones during the fall months alone.

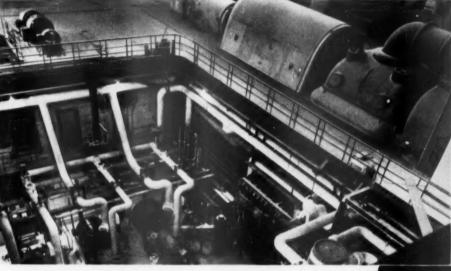
National Distillers will spend \$1.5-million in 90 days promoting its newly introduced version of Old Crow in the form of an 86-proof straight whiskey (BW-Sep.5'53,p52).

• And Appliances—This is a sampling of the liquor field. In other fields—particularly in appliances—advertising budgets are also notching upward. Here are a few companies that within the past few weeks have announced that they are launching "biggest-ever" advertising campaigns: Raytheon, Hallicrafters, Wine Advisory Board,



Plenty of Electricity for this thriving area!





CHEAP ELECTRICITY from the most modern, efficient plants is among the resources making the Upper Midwest so profitable a place to manufacture things and sell them. If you're expanding, here's power a-plenty. Confident of the future of this thriving area of 6,000,000, electric companies here have kept building ahead. For example, Northern States Power Company (serving nearly 2,000,000 of those people) has boosted its electric supply 70% since World War II and will have doubled its supply between 1947 and 1957. Count on the Upper Midwest for both electric power and buying power.



31 HYDRO-ELECTRIC PLANTS, privately owned, and 34 fuel-burning plants—65 in all—can provide over 1,000,000 kilowatts of power for industry, homes and farms in the NSP area.

FOR DETAILS, write industrial Development Dept., Northern States Power Company, Minneapolis 2, Minnesota. Inquiries held in strictest confidence.

*Northern States Power

SERVING THIS PROSPEROUS AREA IN MINNESOTA, NORTH DAKOTA

Company

SOUTH DAKOTA, WISCONSIN

Instant Contact... Complete Surveillance... Immediate Control...



PHILCO Microwave

Modern executives are using Philco Microwave to increase plant efficiency and lower operating costs. Philco Microwave provides communication, supervisory and control facilities for almost every geographically dispersed industry. Pipelines, telephone and telegraph companies, public utilities and others use Philco Microwave for control of equipment and machinery, signalling, remote metering, telephone and teletype. Railroads use Philco Microwave for voice communication, telegraph, teletype and even train dispatching . . . all this over hundreds of miles without costly and vulnerable wire lines. Every day new industries are learning how Philco Microwave can help them do a job more efficiently and more economically. Can Philco Microwave help you in your business? Mail the coupon below for full information.



PHILCO CORPORATION

GOVERNMENT & INDUSTRIAL DIVISION
PHILADELPHIA 44, PA.

PHILCO CORPORATION
Philodelphia 44 Pa

Philadelphia 44, Pa.

Without obligation, please send full information on PHILCO
Microwave.

NAME

TITLE

COMPANY NAME

ADDRESS

Please check the application that interests you

Telephone

Dispatching

ADDRESS

Please check the application that interests you

Telephone
Television
Dispatching
Telegraph
Equipment Control
Teletype
Machinery Control
Racionile
Processing Control
Signalling

"... the new approach is upsetting some time-honored themes ..."

ADVERTISING starts on p. 48

Paper-Mate, Jantzen, Harnischfeger, Dictaphone, Reynolds Metals.

Advertising is benefiting from all this heavy competition, for the men who are sinking this money into promoting their products are making certain that they actually get sales in return.

• Prices Showing—You can see the new era showing up in diverse guises. Take as an example the reappearance of the dollar sign in ad copy (picture, page 44). For a number of reasons, many manufacturers are once again featuring price in their ads. It is a good illustration of the new, direct, straightforward approach to advertising.

• The Changes—This new approach is upsetting some time-honored advertis-

ing themes and ideas.

For years manufacturers of food products have followed what almost amounts to a rite in food advertising, the featuring of recipes using the product. Note what has happened to advertising for General Foods' Jell-O. Its agency, Young & Rubicam, has played up the product itself in rich colors (picture, page 44). This is the direct approach of playing on the consumer's visual sense.

From way back, soap makers have shouted and screamed their messages in big, black type at the public. Now something new is afoot, as illustrated by new ads for Lever Bros.' Rinso. For this soap powder, the agency of Hewitt, Ogilvy, Benson & Mather has prepared a campaign that dwells on ways to take stains out of clothes.

Bank advertising, from time immemorial, has been deadly dull. But now the Chase National Bank advertisements, handled by Kenyon & Eckhardt, have humanized that financial institution (nicture, page 44).

tion (picture, page 44).

• Adman's Wail—There is an ironic side to all this change. It comes at a time when the advertising business itself still laments the passing of its great days when creative geniuses produced famous living slogans and copy. This new age just shaping up may not be as glittering, but it has other virtues. Said one agency man last week:

"It's not so much that there are more brilliant campaigns this year as that there are fewer stupid ones."

This comment was made by William Tyler, vice-president of the Chicago agency of Leo Burnett Co. Another adman, David Ogilvy, agrees with him that the standard this year is higher than it has been. Ogilvy heads the

agency that created the Rinso ads and the more famous campaigns for Hathaway shirts and Schweppes quinine water. Says Ogilvy:

"There is a tendency to stop underestimating the intelligence of the American consumer. Advertisers have begun talking to him as though he is a human being whose intelligence is not

less than theirs."

• Polls—For this change, Ogilvy along with others gives considerable credit to pollsters George Gallup and Claude Robinson, whose joint venture into the science of measuring advertising effectiveness began just after the war (BW–Jul.28'51,p21). A number of major advertisers, including General Electric and Quaker Oats, are using the Gallup-Robinson service.

Gallup says that thanks to his findings a lot of old ideas about advertising are falling by the wayside. He thinks advertising that "keeps shouting out big claims in a dull stereotyped way" is

going into the discard.

"One of the things we've found out," he says, "is that advertising must tell the reader very clearly and convincingly how he can solve his problems."

Another finding is that newsy ads are well read. "The public has more interest in news about the product than advertisers ever assumed before."

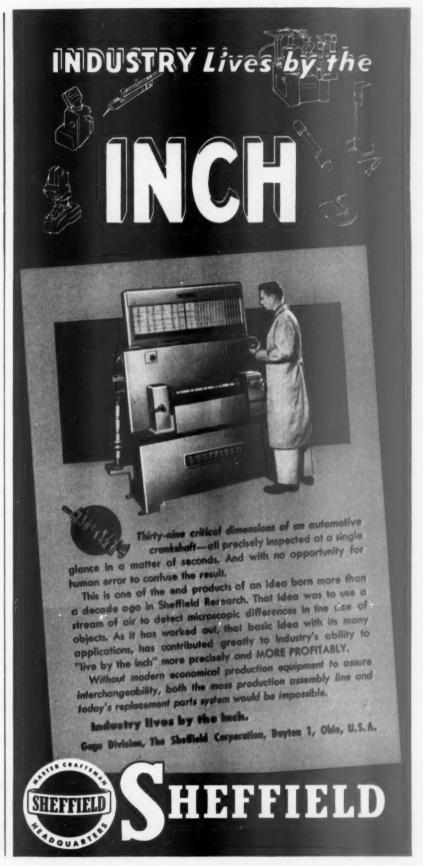
Gallup says that the readership studies are paying off for advertisers. He claims that "our clients are getting up to 50% more readership than they were before they became subscribers."

Advertisers are getting still other tools to sharpen ad copy. Advertising Age reports that Rudolf Flesch, the author of the famous Art of Plain Talk, will shortly publish a new book called How to Make Sense. This will contain a new formula that takes into account punctuation as well as words in measuring the ease with which any given copy can be read.

• More of the Same—Whether or not the low-pressure, give-'em-information school of advertising will win out against the high-pressure, give-'em-theworks school remains to be seen. But one thing seems certain: As long as competition builds up, and advertisers pour more and more money into advertising, the pressure to develop new and better advertising methods will

increase relentlessly.

The omens all point this way. Peterson of Printers' Ink looks for total advertising volume to cross the \$8-billion mark next year. This jibes with the statement made last week by Fred B. Manchee, executive vice-president of Batten, Barton, Durstine & Osborn, who says that the agency's "top accounts" are boosting their ad budgets 10% during the first quarter of 1954 over the first quarter of 1953.



what's the cure for

"ingrown viewpoint"?

Perhaps you've heard something like this said in your own organization—"That may work all right for X-Company, but it just doesn't fit our set-up"!

Often, this may be true. But in some cases, the "set-up" itself may need to be re-evaluated.

Many companies employ us to take a practical look at their methods and organization. One of the biggest assets we can bring to such a job is our breadth of experience in all fields of industry—as evidenced by the following list of assignments we have handled in major industrial classifications during the past 15 years:

	No).	of	A	SS	gr	m	ents
Food			0					56
Textiles and Appar	rel		0					101
Woodworking and	F	ur	nii	u	ne			122
Paper and Printing			0				0	144
Rubber and Chem	ica	ls						144
Stone, Clay and G	las	s	0	0	e	0	0	81
Iron and Steel Pro-	du	ct	6					630
Electrical Equipme	nt					0	0	199
Machinery								244
Automotive	0						0	124
Transportation .								
Retailers and Who	les	al	eri	١.				20

A Practical Prescription for "Ingrown Viewpoint" has been found by many com-

panies in Trundle services. Write for a copy of our booklet Consulting Service for Management. Trundle Engineering Co., Room 206, 2020 Carnegie Ave., Cleveland, Ohio.





CLEVELAND . OHIO

Consultants

Management Marketing Manufacturing Engineering Industrial Rolation WASHINGTON CHICAGO

FTC Is Still Hardboiled

Stringent rulings on Dictograph's exclusive distributor contracts and Eastman fair trade agreements give no evidence of any dramatic probusiness shift.

The Federal Trade Commission announced not long ago that it would judge each case that came before it on the basis of the "economic relevant facts" and on the "rule of reason" (BW-Aug.1'53,p62). But that doesn't mean life is to be a bed of roses for business.

FTC made that clear last week on two counts:

• It ruled that Dictograph Products, Inc., had violated the Clayton Act ban on exclusive distributor contracts that "substantially" affect competition.

 It refused to dismiss its complaint charging Eastman Kodak Co. with writing illegal "horizontal" pricefixing agreements with competing retailers

• Stringent—It's true that in reaching its decision against Dictograph FTC did show its growing willingness to stress the "economic relevant facts" of a case—a pet emphasis fostered by the new FTC chairman, Edward F. Howrey (BW—Jul.4'53,p29). Even so, FTC came up with as stringent a finding as any old-line New Dealer could ask for. There was no evidence in the ruling of any dramatic new trend in FTC philosophy.

The Dictograph ruling was written by Commissioner Albert A. Carretta, but all members, including Chairman Howrey, concurred.

What FTC did last week was to uphold the earlier findings of its trial examiner. He had ruled that the maker of hearing aids and interoffice communicating systems violated both the Clayton Act and the Federal Trade Commission Act by signing and enforcing exclusive dealing agreements with its hearing aid retail distributors. Dictograph lawyers had appealed the decision to the full commission—and the present cease and desist order resulted.

• To the Courts—The FTC ruling is not the end, however. Dictograph's chairman of the board, Stanley Osserman, said this week: "We shall not permit the FTC order to stand without a court fight."

Dictograph did not deny that it writes exclusive contracts. But it claimed before the commission that its contracts are legal in every respect and that—as Osserman put it—"there has been no coercion whatever." The board chairman said the distributors value highly their exclusive right to handle the company's hearing aids. And he

contended that "there has been and can be no limiting of competition because there is nothing to prevent competition from doing exactly what we are doing"—that is, to recruit and train people as hearing aid experts.

• Old Dispute—The row over exclusive dealing contracts is of course an old one. Under the Clayton Act, such contracts are illegal if their effect "may be to substantially lessen competition or tend to create a monopoly." The classic case was the ruling of the Supreme Court three years ago against Standard Oil Co. of California (BW-Jun.18'49,p21). The court held that Standard's contracts substantially lessened competition even though Standard sales accounted for only about 6.7% of the total business in the area.

• Overruled—In the Dictograph case, FTC disagreed all around with the defendant's arguments:

Dictograph claimed that if its distributors were permitted to handle competing products, Dictograph's efforts to present its own products properly would be destroyed: Dictograph's hearing aids require more particularized fittings and tests than other types. The commission said that such an economic advantage to the company did not justify a violation of the Clayton Act.

And the commission said Dictograph's contracts did substantially affect competition. The evidence presented in the case shows that Dictograph sells—through the exclusive agreements—to about 220 specialized hearing aid distributors. Other evidence shows there are only about such 1,000 distributors in the country. That makes Dictograph distributors a substantial portion of the established distributors in the industry.

This fact alone, the commission held, meant that the test of illegality had been met.

• Going Further—But the commission didn't stop there. At this point it moved beyond the strict per se test to demonstrate what it meant by considering the "economic relevant facts" of this particular case.

It pointed to the effective control exercised by Dictograph over this large segment of the retail specialists. During the last 15 years, the hearing aid industry has grown tremendously; the number of producers has jumped from 20 to 80. Yet as each new manufacturer entered the field, the commission said, he found the doors closed as far as those independently owned distributors



Thousands of oil-well drillers prefer R/M Rotary Hose, because its strength, flexibility, and unique built-in leakproof coupling make it possible to drill faster, with greater safety, and at less cost.

Whoever You Are ... Whatever Your Business

An R/M Product **Touches Your Life**

RUBBER HOSE, for example. You'd be surprised at the number of different types of Raybestos-Manhattan hose required to bring you just a gallon of fuel oil or a gallon of gasoline. Together with R/M V-belts, brake blocks and packings, these specialized types of hose help assure you of a steady supply of petroleum products. Important as they are, however, to petroleum and many other industries, they are but examples of R/M's engineering skills. Your life is touched by hundreds of the asbestos, rubber, and sintered metal products made in R/M's seven plants and laboratories. If you are facing problems which involve any of these products, consult an R/M representative.



Millions of barrels of crude are transferred through R/M Loading and Unloading Hose from tankers to the refineries which turn it into plant and home fuel-oil, into gasoline and lubricants.



The gasoline, fuel oil, and other petroleum products you use flow constantly from tank cars to bulk plants to delivery trucks via R/M Tank Car and Truck Hose.



Bottled gas plants use R/M Butane and Propane Hose for filling and delivering with speed and safety. It is specially built to withstand the deteriorating action of volatile liquid gases.

RAYBESTOS-MANHATTAN, INC.

PASSAIC, NEW JERSEY

Praybestos ... Condor · MANHATTAN ... Grey-Rock

FACTORIES: Passaic, W.J. . Bridgeport, Conn. . Manheim, Penna.









N. Charleston, S. C. . Crawfordsville, Ind. . Neenah, Wis. . Peterborough, Ont.





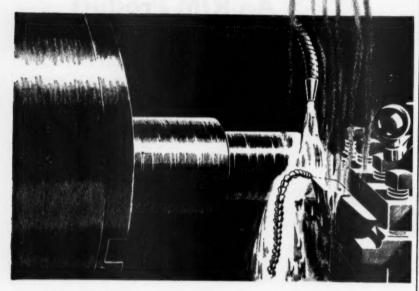


Other R/M products include: V-belts + Fan Belts + Teflon Products

SPECIALISTS IN ASBESTOS, RUBBER, AND SINTERED METAL PRODUCTS

Smoking tools scream...

LOOK OUT FOR FIRE!



Cutting oils smoke because they're heated to the burning point at the tool edge. That's bad for production but, worse yet, it points to a fire hazard. Oil vapors and oils in storage, oil soaked clothing and floors may all contribute to the rapid spread of flames.

No fire hazard exists with all-chemical Lusol metal working solution in your machines. It can't burn, since it contains no oil. Workers' clothing and workroom floors stay cleaner. It doesn't smoke, no matter how hard you work it, so the air is clear in shops employing Lusol.

You also gain production

Because Lusol contains no petroleum oil, it carries heat away from cutting tools faster. Machines can be run at higher speeds...tools last longer and you hold fine finishes and dimensions, since you're not burning cutting edges. Good shopkeeping is easier, with its resulting higher safety and better employee morale.

These are facts proved in hundreds of shops. The booklet, Lusol Gets to the Point, gives you proof. Write for a copy or for help in testing Lusol in your own shop. F. E. Anderson Oil Company, Inc., Box 222, Portland, Connecticut.



ALL-CHEMICAL METAL WORKING SOLUTION of Dictograph were concerned. Here's why:

Dictograph contracts contain termination provisions which require that any time a distributor refuses to handle Dictograph on an exclusive basis, not only could he lose his Dictograph contract but he also has to go out of the hearing aid business altogether for one year. The commission said that Dictograph had canceled distributorships under the termination clauses, and had used court suits to make offenders comply with the "out-of-business" terms.

• Conclusion—FTC summed up the effects of the contracts—held by one of the largest producers in the field—as twofold:

 They close up a substantial portion of the market to competing manufacturers, and

 They deny the distributors the competitive opportunities to handle newer, improved models introduced by other manufacturers or even to sell used hearing aids.

• Invoking FTC Act—Chairman Howrey and Commissioner Lowell B. Mason felt that in getting evidence to support a cease and desist order under the Clayton Act, FTC had gone far enough. The commission as a whole overruled them, however, to find that the Federal Trade Commission Act also had been violated (a finding in which Howrey and Mason agreed, though they did not think the FTC Act should have been invoked).

A point here is that FTC can act faster under a violation of the FTC Act than it can under the Clayton Act. Cease and desist orders under the FTC Act automatically become effective within 60 days unless appealed.

• Kodak Split—In ruling not to dismiss the Eastman Kodak case, the commission was split. Chairman Howrey vigorously dissented from the majority opinion. The majority held that because Eastman has its own retail outlets, its fair trade contracts—which bind all other retail outlets—are in effect price fixing by competing retailers.

Howrey held that there was no evidence of conspiracy among competitors to fix prices. He said that many manufacturers have their own retail outlets, and that the law was never meant to debar such manufacturers from making resale price maintenance agreements.

• Another Dissent—Howrey took a similar minority view a week or so ago when FTC rejected its trial examiner's findings in the case of Doubleday & Co., Inc. Doubleday was in the same position as Eastman because it is both manufacturer and retailer of books. FTC's trial examiner dismissed the case against Doubleday some months ago. Now FTC has told him to take another lock.



AUTOMATIC FIRE ALARMS AUTOMATICALLY KEEP SMALL FIRES SMALL



First when seconds count!

Fire strikes and spreads so rapidly that any delay — even seconds — in notifying the Municipal Fire Department can be disastrous . . . might put you out of business permanently.

You can depend on a Gamewell Fire Alarm System to contact the Municipal Fire Department *immediately* and *automatically* when a sprinkler head goes off or an alarm box is pulled . . . no guesswork . . . no costly delays!

Easily added to your present sprinkler system, a Gamewell Fire Alarm System safeguards your personnel, your plant and your production. Get *complete* protection... write NOW for the name of your nearest representative.

THE GAMEWELL COMPANY, Chestnut St., Newton Upper Falls 64, Mass.
In Canada: Northern Electric Co., Ltd., Belleville, Ont.

On guard 24 hours a day — every day



Trading Stamps...

. . . start supermarket war in Denver, new activity in Texas. In lowa this form of hard sell faces legal test.

Trading stamps, like premiums (BW –Oct.3'53,p148), are breaking out all over. The usual deal is to give a customer a stamp with each 10¢ purchase. When he has 1,200 stamps, he can turn them in at a redemption center for \$2.50 worth of merchandise. It's a favorite device of the 1930s, brought back in a new era of competition.

• Denver Spiral-In Denver, a full-fledged battle of the stamps has been

Supermarkets such as Busley's, Miller's, and Save-a-Nickel offered two stamps instead of one. Some of the bigger chains—Piggly Wiggly for one—got into the act. The next round: The ante was upped to three and even four stamps at a whack. Safeway and others, which offer no stamps, were forced to advertise that you save money, not stamps, at their stores.

Merchants were rueful. Stamps were

cating up their profits, they said.

It got so bad that finally the stamp companies themselves stepped in. Five of them issued a joint statement that merchants would be prohibited from giving more than one stamp with every 10¢ purchase. This week, things were back to normal.

• Texans' Angle—Texas has the fever, too. A group of Lubbock (Tex.) businessmen set up their own stamp plan under the name Scotties. Customers take these stamps, given out by retailers, to department stores for redemption instead of to a center set up by the trading stamp companies themselves.

• Legal Fight—In Iowa, the battle is in the courts. It started last May, when Leo A. Hoegh, state attorney general, ruled that combination trading stamp schemes are illegal and told nine national trading companies to pull out. Hoegh noted, though, that plans set up by individual merchants were O.K.

He based his order on a 1909 state law, which, he says, prohibits two or more firms from entering into an arrangement to induce the purchase of merchandise. Such deals are monopolistic, he says, destroy the little merchant.

Sperry & Hutchinson Co., New York, one of the nine firms hit, got a temporary injunction to stop the order. In July, District Judge C. Edwin Moore ruled the stamp plans were legal and the state law unconstitutional. Moore held that the stamps are merely the equivalent of a cash discount.

The case has been appealed.

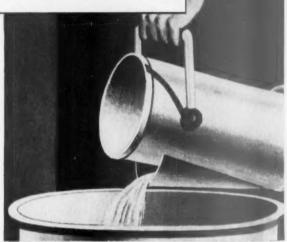
HOW MUCH WILL

CORROSION

COST YOU THIS YEAR?



CHEMICALS CAN CORRODE METALS IN 12 MONTHS OR LESS.



UNPLASTICIZED P. V. C. JUST DOESN'T CORRODE.

Nota cent... IF YOU SWITCH TO

UNPLASTICIZED P.V.C. MADE FROM FIRESTONE EXON 402-A

Unplasticized P.V.C. is a new material of construction that is highly resistant to most corrosive elements. In many industrial applications, it has proven to be superior—less expensive—than customary metals. Check carefully the advantages of Unplasticized P.V.C. Then, for detailed information on how this new material of construction can help you in *your* business, consult Firestone Chemical Sales Division.



Tank Liners, Exhaust Systems, Similar Applications—Highly resistant to corrosion, Unplasticized P.V.C. made from Exon 402-A is ideally suited for tank liners, exhaust systems and a wide variety of other industrial applications.



Industrial Pipe—Naturally, piping extruded from Unplasticized P.V.C. made from Exon 402-A is resistant to all types of corrosion. It is extremely light weight in comparison to metal...easier and less expensive to handle.



Versatility - Unplasticized P.V.C. made from Exon 402-A can be welded, sawed, sheared, stamped, milled, planed, drilled, embossed, rolled, cemented. It is easily worked on conventional metal and wood working equipment.



How does this new material of construction fit into your picture? Have your engineers consult the Firestone Chemical Sales Division on proper applications of Unplasticized P.V.C. made from Exon 402-A... or write:

Firestone.



Chemical Sales Division

FIRESTONE PLASTICS COMPANY, DEPT. BB,
POTTSTOWN, PENNSYLVANIA
A Division of Firestone Tire & Rubber Co.

NOTE: Firestone supplies the resin only, and does not manufacture the end product.



MOTE SPACE all on one floor MOTE exhibitors nearly 500 Casily accessible centrally located

Methods Processes Materials
Equipment Techniques Developments

Your executives, engineers, research and production men will find an unequalled opportunity to get first hand information from the men and companies who have contributed to the advances in the fast moving chemical industries. Years of chemical processing knowledge will be conveniently assembled under one roof in this greatly expanded exposition. The progressive exhibitors represented will have technically staffed displays designed to make this exposition more informative than ever.

Nowhere can you get so much valuable information on the latest developments in the chemical processing industries, in so short a time and so vividly. PLAN NOW TO ATTEND, BE SURE TO BRING YOUR ASSOCIATES.

24TH EXPOSITION OF CHEMICAL INDUSTRIES ESTABLISHED 1915 NOV. 30 to DEC. 5

COMMERCIAL MUSEUM and CONVENTION HALL

Application forms for hotel accommodations are available by writing to INTERNATIONAL EXPOSITION COMPANY, 480 LEXINGTON AVE., NEW YORK 17, N. Y.

Better Showing

Macy's profits jumped 75% ahead this year . . . Sears sales dipped last month . . . Auto blitz grows.

R. H. Macy & Co. has had a lot of explaining to do to its stockholders the past year or so (BW-Nov.22'52, p120). But last week the department store chain had good news: Consolidated net income was up almost 75% for the 52-week year ended Aug. 1 over the 53-week year of 1952. The moral seems to be that the retailer's drive for greater efficiency can pay off.

Sales were up, but not enough to account for the jump in net earnings. Net sales came to \$332.6-million, against \$331.8-million the preceding year. Net operating earnings after taxes, on the other hand, came close to \$4.9-million, or \$2.20 per share of common stock. That's against \$3.8-million, or \$0.98 per share the year before.

Since Macy's keeps quiet about such matters, there's no way of knowing whether the figures cloak any major improvement in the big New York store, admittedly the company's No. 1 headache. President Jack I. Straus lays part of the gain to "organizational changes and improvements both in merchandising and in general operating efficiency." Lower markdowns and strenuous programs to cut costs helped.

There's no extravagant optimism in the report. "We have made progress in overcoming some of the obstacles which have beset department store trade in recent periods," Straus says cautiously. And he notes "evidences of contraction in some lines of activity." But he predicts the good news will last for the last half of 1953—and for the first half of 1954.

Dip for Sears

After nearly a year and a half of steady sales increases, Sears, Roebuck & Co. stepped down a peg. Sales of \$260.5-million for September, 1953, were 4% below September, 1952, sales.

Hot weather was probably the chief culprit. Sales picked up the last two weeks, when the temperature dropped. But they couldn't overcome the early heat blast, when customers just couldn't make it to the stores. The heat wave may also have accounted for the fact that Scars' August sales topped the previous August's by a bare one-tenth of 1%.

• Factors—There are other factors to take into account, of course. One is the sag in big-ticket merchandise: home

"PUSH-BUTTON" FIGURING CUTS HIGH OFFICE COSTS

Office costs are now so high that even a small business can't afford to be without the latest equipment. Marchant Calculators, Inc. is meeting the need for faster figurework at lower cost with today's most complete and diversified line of calculators.

Topping the Marchant line is the FIGUREMASTER, world's fastest, most completely automatic calculator.

For engineering, statistical and scientific usages, there is a special FIGUREMASTER with "live tab" keys. Another special model has "split clearance" for individual extensions and accumulated totals.

Still another modified FIGURE-MASTER is the Marchant-Braille Calculator, which brings to the blind their first practical mechanical multiplication, division, addition and subtraction.

The new, improved Marchant FIGUREMATIC is the only calculator in its price range with simultaneous automatic multiplication. Just enter the multiplicand and multiplier and read the answer. And, with the new Dividend Key and more flexible tabulation on the ADX FIGUREMATIC, the most demanding user now has a one-two punch in automatic division as well as automatic multiplication—a complete performance at a lower price than ever before.



THE NEW FIGUREMATIC for faster, easier division

The Retail Special FIGUREMATIC, designed for rapid and inexpensive store inventory, is invaluable for general retail or chain store figurework. For complete information write

MARCHANT CALCULATORS, INC.
Oakland 8, California

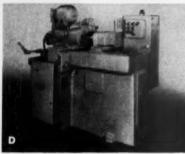


METALS









Berylco beryllium copper plays a vital role in many production tools. As, for instance, in the: (a) Blanchard Surface Grinder; (b) New Britain Gridley 6-Spindle Automatic Screw Machine; (c) Pratt & Whitney Pneumatic High-Speed Grinding Head; (d) Chucking Grinder. For parts used, see below.

BERYLLIUM COPPER...a miracle metal with down-to-earth capacities

The miraculous quality of Beryllium copper is its versatility. Here, in one alloy, are combined such properties as strength, conductivity, elasticity and fatigue resistance. Ask makers of production tools why they choose Berylco. You'll get dozens of reasons. Economy. Ease of production. Hardenability, etc., etc. But it is the capacity of Berylco to make a better product—one that delivers long life with minimum maintenance—that is its outstanding appeal.

In the automatic screw machine shown above, wear—and expensive maintenance—in the stock feeding mechanism was eliminated by replacing the offending parts with smaller, more efficient ones made of Berylco. In the chucking grinder, where this alloy is used for "plain" bearings in the cam

follower rolls, the dense surface structure of Berylco makes possible an extremely accurate, frictionless bearing. The spring properties of Berylco are all important in the Pratt & Whitney grinding head, where it is used for a spring governor; and in the Blanchard, where it is used for wheel clamps. Because Berylco is corrosion resistant, these clamps do not have to be plated. The nonmagnetic properties of Berylco also eliminate sticking.

One of the best things about Berylco beryllium copper is its availability in any quantity or form you need. If you would like to find out what this unique alloy can do for you, write the world's largest producer of beryllium copper, THE BERYLLIUM CORPORATION, Dept. 3J, Reading 20, Pennsylvania.

Tomorrow's products are planned today-with Berylco beryllium copper



(a) Berylco spring clamps used in the solid wheel holder of a Blanchard Surface Grinder; (b) A few of the Berylco castings in the stock-feeding mechanism of the New Britain Automatic; (c) Berylco spring governor used in the Pratt & Whitney Pneumatic High-Speed Grinding Head; (d) Berylco bearings found in the cam follower rolls of the Chucking Grinder.

furnishings, appliances, carpeting. Dropping sales may also reflect the downturn in farm income.

But on the basis of only one month's showing, it would be premature to attribute the current dip to the slow-down in Sears' expansion program. Sears seems bent on correcting this trend, anyway. Last week it opened its 692nd store—in Casper, Wyo. For the first time, the company now has a store in each of the 48 states.

• Not Depressed—It's likely that Scars isn't too depressed by the short-term slide. After all, September, 1952, was 15% ahead of the year before; it was a hard month to top. What's more, for the first eight months of 1953, Sears' sales came to \$2-billion—a gain of approximately 6.7% over the same 1952 period.

Jazzing Up Car Sales

Watch for the sales blitz in cars to spread. You had one example in White Plains, N. Y., two weeks ago (BW—Oct.10'53,p32) when a Lincoln-Mercury dealer put on a show to sell "48 cars in 48 hours." Now, from Seattle to New York, dealers are turning on the same sort of heat.

Example 1: Nash dealers of metropolitan New York put on a similar show last week. Big newspaper ads proclaimed that some 75-odd dealers in the area had pledged to sell "five miles of new Nash cars in 48 hours." As a come-on, they promised: "Get up to \$300 more than you've been offered before."

This drive differed from some of the others in that it was a group operation; the Lincoln-Mercury campaign was the work of a single dealer. The regional office of Nash Motors cooperated in the drive. So far the sales score hasn't been tallied yet, but dealers are sure of one thing: The advertisements pulled in a lot of potential customers.

Example 2: In Seattle, Ford dealer Wm. O. McKay Co. proclaimed, "October 8 is 'F' day in Seattle." His avowed aim was to sell 100 new Fords in one day. The kicker in this drive: "Twenty dollars net profit is all we ask."

• Price War—Meanwhile, the Midwest reported the same hard-sell story. W. C. Heil, president of the Cincinnati Automobile Dealers' Assn., said price-cutting in the new car market was the worst in 30 years. In Columbus, September was the fourth month in the last five to show a month-to-month sales decline. But another fact took some of the sting out of the Columbus dealers' troubles: Sales for the nine months of this year still topped the 1952 mark by 47%.



Specially treated Wellington Sears nylon fabric is ideal for press covers because of high heat resistance, durability, low starch pick-up.



Electronic parts and other aircraft components are made of laminated plastics requiring high quality fabrics as fillers.



Filter cloth used in continuous-operation processing of chemicals, as in rotary leaf vacuum filters, requires porosity, chemical resistance, durability.

DESIGNED TO MOVE MOUNTAINS

Wellington Sears Belting Fabrics Are Engineered for the Job

Transport from mountain-leveling mines obviously demands heavy tonnage conveyor belt fabrics. Other types of production impose different problems - and call for different solutions. With materials-handling sales over one billion dollars, with all levels of industry stressing low cost continuous-operation methods, the growing need for individually designed industrial fabrics is being met creatively by Wellington Sears. Engineering fabrics for the job may seem arduous, but it is ordinary operation to Wellington Sears. We have accumulated over 100 years experience by keeping our viewpoint up-to-date. This knowledge, backed by matchless technical facilities, may well solve your fabric problems. It is yours for the asking.

For your free copy of "Modern Textiles for Industry"— 24 pages of facts on fabric development and application—write Wellington Sears Co., Dept. G



FOR THESE AND OTHER INDUSTRIES

Rubber Automotive Fabric Coating Plastics Canvas Products Abrasive Chemical Food Processing Sugar Refining

Petroleum Mining Ceramics Farm Machinery Loundry

WELLINGTON SEARS OFFERS MANY VARIETIES OF THESE FABRICS

Cotton Duck
Drills, Twills and Sateens
Automobile Headlining
Industrial & Laundry Sheeting

Chafer Fabrics
Synthetic Fabrics
ning Airplane & Bailoon Cloth
y Sheeting Fine Combed Fabrics
Bonded (Non Woven) Fabrics

Wellington Sears

A SUBSIDIARY OF WEST POINT MANUFACTURING COMPANY

FIRST In Fabrics For Industry

WELLINGTON SEARS COMPANY, 65 WORTH STREET, NEW YORK 13, N. Y.

OFFICES IN: ATLANTA · BOSTON · CHICAGO · DETROIT
LOS ANGELES · NEW ORLEANS · PHILADELPHIA · SAN FRANCISCO · ST. LOUIS





MARKETING BRIEFS



Goldfish are really in the bag in Little Rock. Roy Prewitt, a Lonoke (Ark.) goldfish grower, puts three to six fish in a transparent plastic bag filled with water. He adds a capsule that provides oxygen, removes poisonous gases. Fish stay alive 17 hours, he says. Variety stores report customers love their bagged catch.

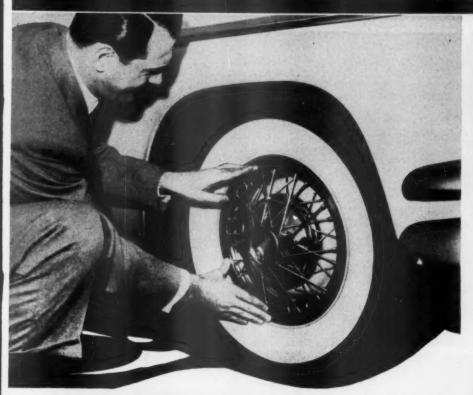
Diamond bargain sale at New York's S. Klein store (BW-Oct.3'53,p30) brought a flurry of customer complaints. Independent appraisers, employed for the sale, figured that Klein's prices ran about 15% below normal retail; customers said other appraisers disagreed. Klein says it proved to the Better Business Bureau that its prices were as advertised.

The \$25-million that Marshall Field is supposed to get for the sale of its Field-crest textile division (BW-Sep.26'53, p34) will go to expand retail operations. The company already has a \$25-million shopping center on the boards near Chicago and will open a new leased department store in Milwaukee. Now it may expand these plans.

Another big appliance chain in Washington, D. C., filed bankruptcy papers. Lacy's, Inc., followed the example of Phillips Television & Appliances, Inc.—the second such bankruptcy in four months. Too much easy credit was the big trouble. Lacy's had been forced to take back hundreds of thousands of dollars' worth of repossessions.

Marketing strategy depends on who's talking. While Easy Washing Machine is pushing its nonautomatic machine for the farm market (BW-Oct.10'53, p46), General Electric will discontinue its wringer washers next April.

Only STEEL can do so many jobs so well





Big Cliff Dam in Oregon, like most modern dams, is arresting evidence of the truth that only steel can do so many jobs so well. For steel plays a vital part in all phases of construction and operation: from steel craneways to enormous penstocks; from huge steel gates to countless steel reinforcing bars buried in the concrete. Big Cliff Dam is 180 feet high from foundation to deck, 295 feet long.



All Dressed Up and ready to join the style parade on any boulevard are auto wheels that wear smart new wire wheel inserts of U-S-S Stainless Steel. The qualities of stainless steel are exactly right for uses such as this. For stainless steel is strong yet light in weight; it resists corrosion; it stays bright and new-looking.

Wider, Stronger Bridges that can be erected quickly are needed by the Army today—because of larger, heavier mechanized equipment and the necessity for rapid movement. Here's one of the new Division Floating Bridges undergoing a gruelling load test... bearing the enormous weight of a motor gun carriage. Many of these Army bridges are floored with U-S-S I-Beam-Lok Steel Flooring.





Back-stage...at a Restaurant. Here you see what's behind the scenes at one of the finest of Los Angeles restaurants. And what's behind the scenes is U-S-S Stainless Steel . . . sparkling, easy-to-keep-spotless stainless steel kitchen equipment that helps to guard food flavors, helps to assure maximum cleanliness, helps to make every kitchen task easier and more sanitary,

UNITED STATES STEEL

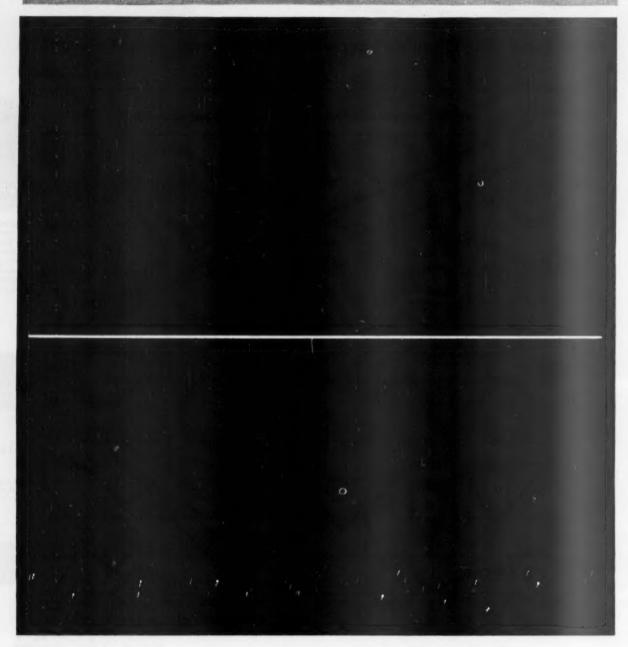


This trade-mark is your guide to quality steel

For further information on any product mentioned in this advertisement, write United States Steel, 525 William Penn Place, Pittsburgh, Pa,

AMERICAN BRIDGE...AMERICAN STEEL & WIRE and CYCLONE FENCE...COLUMBIA-GENEVA STEEL...CONSOLIDATED WESTERN STEEL...GERRARD STEEL STRAPPING...NATIONAL TUBE
OIL WELL SUPPLY...TENNESSEE COAL & IRON...UNITED STATES STEEL PRODUCTS...UNITED STATES STEEL SUPPLY...Dividion of UNITED STATES STEEL CORPORATION, PITTSBURGN
UNITED STATES STEEL HOMES, INC. • UNION SUPPLY COMPANY • UNITED STATES STEEL EXPORT COMPANY • UNIVERSAL ATLAS CEMENT COMPANY
3-1608

FINANCE



Dim Future Depresses Rail Stocks

The railroads are headed for their biggest year in history. Unless the roads take a totally unexpected fall on their faces in the last quarter, 1953 earnings will top all records for both gross and net.

But you'd never believe it if you looked solely at the dismal showing the roads have been making in the stock market (charts above).

On the operational side, you find these gaudy figures:

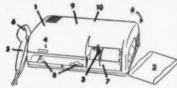
Operating revenues of the Class 1 roads should reach around \$10.8-billion by the yearend. That tops 1952, the year of the peacetime record gross, by over \$200-million. And it's \$1.4-billion higher than 1944, the peak wartime year.

Profits after all charges should be

around \$925-billion, beating 1952 by a full \$100-million. Previous records were the peacetime \$897-million in 1929, and 1942's wartime net that just missed \$902-million.

Trouble is, the steady rise of gross and net has been matched by an equally persistent decline of the railroad shares. This week finds Standard & Poor's rail index right back where





No other dictating machine ever built offers you all these advantages!

- 1. Functionally designed for dictation.
- 2. Exclusive Dictabelt record. Unmatched clarity and easy use.
- 3. "See where you are" visibility.
- 4. Automatic voice pilot.
- 5. "Natural dictation" Master-Mikestart-stop, automatic playback.
- 6. Two-speaker playback.
- 7. New positive correction system.
- 8. New one-hand, one-motion controls.
- Automatic built-in features keep you dictating smoothly.
- 10. Magnesium-built, A.C. or A.C./D.C. for practical portability.

A personal message to every busy man who wants to get the best out of himself

If communication has no part in your job, you don't need any dictating machine.

BUT if it's vital for you to get across the very best that's in your mind, nothing can help you quite so much as the new Dictaphone TIME-MASTER "5."

This latest, lightest, finest model of the revolutionary TIME-MASTER is a superb piece of office equipment. But far more important, the "5" actually helps you to think better, communicate better, get more done.

You can double your capacity for handling routine with the TIME-MASTER. And that's just the beginning of your partnership.

Perhaps more than you realize, men are measured by what they communicate. Success depends on effective communication. Your success. Try the TIME-MASTER "5" in your office.

DICTAPHONE CORPORATION, Dept. BU-103 420 Lexington Ave., N. Y. 17, N. Y.

I would like:

- ☐ My free copy of descriptive folder, "Success."
- A TIME-MASTER demonstration with no obligation.

Name_

Compan

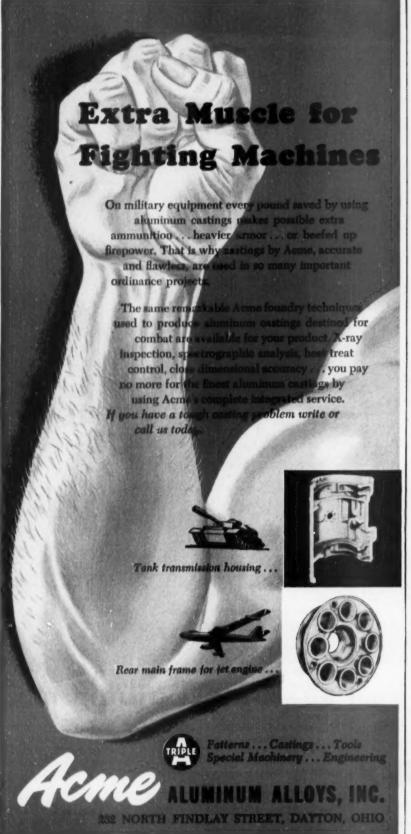
Street

City & Zone State

DICTAPHONE

makers of the TIME-MASTER the #1 dictating machine

CLIP THE COUPON NOW!



it was at the start of 1952. The juicy 28% gains visible at the start of this year have vanished completely.

• No Paradox—The situation looks like a Grade A paradox. But it isn't. Actually, investors and traders have been behaving quite normally. And so have the uninitiated laymen, who are making their usual mistake in observing market behavior.

That error lies in thinking that stock prices will always tag along upward after a rise in carnings. They don't, necessarily, even if the earnings rise is quite steep. The reason for this lies in the market's role as a "discounter." Actually, investors and traders are primarily swayed by how they think things will be six months or a year from the present. Of course, they are also influenced by immediate trends, but not so much so.

S&P's index shows that clearly, in the case of the rails. The eager buying that pushed the index up 28% last year was inspired by confidence that 1953 would be a banner year. By the same token, the 1953 selling that has dissipated the whole 1952 gain had its roots in a belief that 1954 might not be so good for rail earnings.

Many smart Wall Streeters think that these fears have swelled to unreasonable proportions. Perhaps they are right; but just the same the fears have some perfectly sound foundations.

• Traffic Steady—For one thing, this year's record-breaking gross hasn't been due to any notable gains in traffic. Carloadings through September were only 3.7% above last year. That's not much of a rise in the light of the terrific dent that the steel strike put in carloadings for June and July of last year. Indeed, carloadings for 1953 were 4.2% below 1951.

What did cause the revenue rise, primarily, was the boosted freight rates that gave first-half 1953 a big edge over the previous first half. The rate raise was granted in mid-1952, which means that the comparisons for the rest of this year no longer have the differential over 1952. This loss of advantage is already beginning to show up on the books. Thus August revenues were up only 2.1% over the previous year, where the January-July stretch had showed a 5.8% gain. (Similarly, profits, which were 38% higher in the first seven months, rose only 1.2% in August.)

• Setback—The possibility of a business setback in 1954 is another factor working against rail stocks prices. Of course no one knows how severe such a setback might be, but even the most optimistic seem pretty well agreed on two points:

Industrial production will fall off at least moderately next year.

• No matter what the extent of the readjustment, the durable goods



His the new Blue-White look of

HAMMERMILL DUPLICATING PAPERS

HAMMERMILL MIMEO-BOND and HAMMERMILL DUPLICATOR

With its new blue-white look, famous HAMMER-MILL MIMEO-BOND produces truly outstanding reproduction jobs. Its exclusive air-cushion surface enables it to absorb mimeograph inks more fapidly, without smudgy set-off—to produce 5,000 or more clean, legible copies from a single set-oil. New blue-white HAMMERMILL DUPLICATION will turn out brilliant copies—that retain their tork will turn out brilliant copies—that retain their brightness—on either spirit or gelatin-type mabrightness—on either spirit or gelatin-type machines. Both papers come in a wide range of handsome colors as well as the new blue-white.

AND WHIPPET MIMEOGRAPH
and WHIPPET DUPLICATOR

whipper mimeograph has now been given a sparkling new blue-white look. whipper duplication is a brand-new Hammermill paper—also made in a blue-white that commands attention. Both are an excellent value where the looks of a Both are an excellent value where the looks of a ham both have uniform quality that is unusual at such surprisingly low cost.

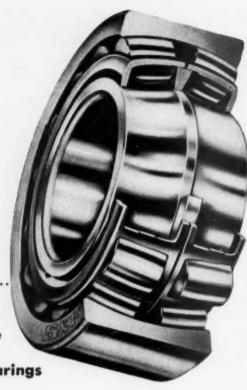
Send today for your free HAMMERMILL MASTHEAD KIT. It's filled with idea-building samples of printed mastheads on Hammermill duplicating papers. Write to Hammermill Paper Company, 1455 East Lake Road, Erie 6, Pa. All 4 fine papers now improved to give you faster, cleaner, brighter copies—and more of them!

Here's a whole bright, new outlook for all your duplicating needs! Hammermill's new blue-white papers make copy after copy look brighter and more attractive. Famous for outstanding performance, these papers feed easier, run faster, save time and money on every office reproduction job.

Ask your printer to show you the wide variety of Hammermill duplicating papers he has available. He'll also be glad to show you how colorful printed headings can add extra attention value and improve the effectiveness of all your office duplicating.

HAMMERMILL Duplicating Papers





Another SKF "First".

now, an SKF improvement in the internal design of **Spherical Roller Bearings** provides

25% to 50% increased capacity 2 to 3½ times increased service life

Your design engineers can get complete technical data about this revolutionary advance in design of SISF Series 222 and 223 Spherical Roller Bearings by asking for BCSF Bulletin No. 365-4. Write to SICF INDUSTRIES, INC., Dept. 616, PHILADELPHIA 32, PA. - manufacturers of **BKF** and HESS-BRIGHT bearings.



industry will be hit harder than any

other sector of the economy.

Even a mild decline in durable goods would be a hard blow for the railroads. Heavy stuff has always provided the carriers with a substantial part of their bread-and-butter, and this tendency is

Any blow will find the roads in a best-ever position to cope with declining traffic. Just the same, the roads can't quickly adjust their operating costs to a loss of "sales," as most in-dustries can. A large part of their operating costs are relatively fixed. That factor works two ways. Its strong leverage on earnings can push downward as hard as upward, depending on the ebb and flow of gross.

All this explains why investors and traders like to pull in their horns when they scent a coming decline in rail traffic. Bitter experience has taught them that even a 10% traffic drop can be the cause of a much steeper fall in

· Wage Costs-Another factor weighs even more heavily in the scales. Labor costs are the railroads' biggest cost item, and there are signs that payrolls will go way up in 1954

Contracts with the brotherhoods have just expired. The unions' opening gambit in the new negotiations has worried roads and investors alike: They are asking for a 371¢ an hour wage boost, plus more liberal vacations and the elimination of pay inequities. Presumably this is just an asking price, but it's a sure thing that the eventual settlement is going to cost the railroads plenty.

Some Wall Street analysts think the roads will be able to hold the coming wage rise to around 8¢ an hour. But most people-including some railroaders speaking privately—doubt any such "cheap" settlement. They feel that a 10¢ to 12¢ rise is more likely.

Superficially, a 2¢-to-4¢ difference may look insignificant. But railroaders know that even a le an hour increase tacks something like \$30-million a year onto the payrolls of the Class 1 roads. So it's a safe bet that they will fight long and hard over every fraction of a penny.

· Treasury Help-The full impact of the wage increase, whatever it may be, won't fall solely on net income. Due to the high normal and surtax rates, the Treasury will shoulder some of the

Just the same, a 10¢-an-hour pay rise could put a serious dent in earnings, especially if it were coupled with traffic dropping by as much as 10%. The earnings loss to some carriers could be startling.

The roads might resist a fall in earnings in two ways:

• By persuading the Interstate



Fireproof, waterproof FOAMGLAS insulates the roof of the National Archives Building which safeguards our priceless documents such as the Constitution and the Declaration of Independence. For lasting protection of these treasures and official records of Congress and all Executive Departments, the Public Buildings Service depends on long-lasting FOAMGLAS insulation to help control constantly both temperature and humidity.

FOAMGLAS is composed of minute sealed glass cells which form an effective barrier to the entrance of moisture, thus helping to avoid excessive humidity . . . chief enemy of paper preservation. Since it is also incombustible, vermin-proof, acid-proof, rot-proof, and has high compressive strength, your clients can count on long, constantly efficient insulating performance when you specify FOAMGLAS, the stay-dry insulation.

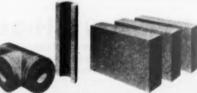
As a further aid to architects, PC has just published four new booklets on the use of FOAMGLAS for normal temperature buildings, refrigerated structures, piping and equipment. For a free sample and your choice of booklets, please write to: Dept. F-113 . . .

PITTSBURGH CORNING CORPORATION

One Gateway Center * Pittsburgh 22, Pennsylvania

AS®

the cellular glass insulation . . . it stays dry!







Pittsburgh Corning also makes PC Glass Blocks

TIME-SAVINGS like these by Leading Air Conditioning Plant

Attract Top-Level Attention





one of the many important reasons why you'll find

in the "Best of Companies"

For more than sixty years, leaders of American industry have come to Kling for Quality Metal Working Machines, to improve on old methods, cut costs, save time, improve production! Kling performance, as exemplified above, is so outstanding it is attracting top-level attention in plant after plant. We invite interested officials to write us for Special Bulletins on specific machines.

KLING BROS. ENGINEERING WORKS Kostner at Kamerling Chicago 51, Illinois

Makers of Friction Saws, Double Angle and Rotary Shears, Punches, Plate Bending Rolls and Combination Machines - found in the "Best of Companies"

Allis-Chalmers Mfg. Co. Auto Specialties Mfg. Co. Bethlehem Steel Co. Inc. Carrier Corporation Cherry-Burrell Co. Commercial Tank & Welding Co. L. B. Foster Co. Grand Iron Works Inc. Kyle and Company Link-Belt Co. Vincennes Steel Corp. Wabash Railroad Co.

AND THE RESIDENCE OF THE PROPERTY OF THE PROPE Your business insurance program courts disaster when it fails to reflect changing economic conditions.

JOHNSON & HIGGINS

INSURANCE BROKERS - AVERAGE ADJUSTERS 63 WALL STREET . NEW YORK 5

New York · Chicago · San Francisco · Las Angeles · Detroit · Cleveland · Philadelphia · Pittsburgh Buffalo · Seattle · Wilmington · Vancouver · Winnipeg · Montreal · Toronto · Havana

Commerce Commission to grant further rises in freight and passenger rates. Most roads would be very hesitant to try this, because of competitive factors.

· By reducing operating costs. But it's getting harder every day to increase efficiency at the rate achieved in the past few years. Most of the postwar cost cutting has come through dieselization, and that is pretty well completed

FINANCE BRIEFS

Providence may soon house New England's second-largest bank. A merger of Industrial Trust Co. and Providence Union National Bank-which combined have \$495-million of assets, over \$456million of deposits-is now under negotiation. Boston's National Shawmut Bank, now the region's second-largest bank, at midyear had assets of \$424million, deposits of \$381-million.

Ontario, Canada, has registered \$50-million 25-year debentures with SEC for public offering soon. Their interest rate and offering price won't be announced until later. Last time Ontario borrowed in the New York market was in January, when it sold \$50-million 31% debentures at 961% of par, or on a 3.46% yield basis.

Minneapolis & St. Louis Ry. directors have turned down a minority stockholder group's request for representation on its board and other changes (BW-Aug.15'53,p64). The reason, reports Lucian C. Sprague, president: failure of the group headed by Chicago attorney Ben W. Heinman to prove its holdings are as large as claimed. Heinman terms Sprague's assertion "untrue."

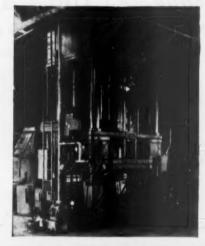
State and municipal financing in September totaled \$453.9-million in the same 1952 month, reports The Bond Buyer. This brought the nine-month financing to some \$3.9-billion, highest January-September figure ever recorded.

Pennsylvania RR has signed a sevenvear lease to borrow 10 diesel electric locomotives each year from May to November—the iron ore season—from Bangor & Aroostook RR, Maine's famed "Potato Road." Traffic over the Bangor in those months shows a seasonal dip.

Pacific Gas & Electric Co.'s latest stock offering to shareholders (its seventh since World War II) proved as successful as its predecessors. Subscriptions came in for 98.13% of the 1,946,-829 shares offered at a price of \$33.50 (some \$4 under current market).

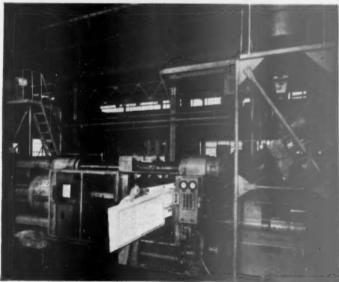


Good
ideas
molded
in
plastics
by



This 2,000 ton compression press molds a complete console television cabinet every few minutes.

Batteries of huge 300-oz. injection presses produce in one shot—a complete inner door panel for a 12 cu. ft. refrigerator.



General American

You may be able to do more with plastics than you thought you could! At General American, we're working with manufacturers who never before had considered plastics. Old limitations of size, shape and color are being removed. New design possibilities and styling are adding saleability to products and parts of all kinds.

By taking full advantage of equipment that

is unmatched anywhere for large-scale injection, compression and reinforced plastics molding, we've been able to improve old products, mold many new products—as well as cut production costs for customers.

We'd like to help you see your ideas take form in plastics correctly applied,

See General American for plastics molding

PLASTICS DIVISION

General American Transportation Corporation

135 South La Salle Street • Chicago 90, Illinois

Phone: Financial 6-4100





Consistently 1/2 The Cash to Build Toll Roads

By the time all present plans are completed, the total loans may reach \$5-billion. Major issues are appearing constantly, and the end is not in sight.

Builders of the nation's rapidly expanding network of toll roads are looking increasingly to investors for the dollars to keep the construction ball rolling (BW-May 30'53,p110).

Toll road authorities are uncorking nearly \$700-million of borrowing for just three of the more than 20 turnpike building states-Indiana, Massa-chusetts, and New Jersey. Many times this amount will be sought before the toll road construction is complete. Nobody knows when and where the laying down of toll superhighways will end.

• The Biggest-This week a group of 359 underwriters offered a \$150-million issue of New Jersey Turnpike Authority revenue bonds. The size of this issuethe biggest tax-exempt offering of 1953 (BW-Oct.3'53,p54)-led one Wall Street bond man to remark:

"An offering has to be \$100-million or more these days to raise eyebrows. There was a time when \$10-million was considered a good-size piece of business Today, it's peanuts.

On the heels of the Jersey Turnpike issue, around \$135-million of bonds of the New Jersey Highway Authority are to hit the market-possibly early next month. The Highway Authority, a separate New Jersey toll road agency, is building the Garden State Turnpike.

In December or January, the Indiana Toll Road Commission is expected to come to the underwriting well for \$200million or more. And, in the not too distant future, the Massachusetts Turnpike Authority plans to sell \$200-million or more of bonds.

• Still Coming-Other turnpike bodies expected to seek toll road funds in the near future include those in Colorado, Connecticut, Florida, Illinois, Iowa, Kansas, Kentucky, Michigan, Nebraska, New Hampshire, New York, North Carolina, Ohio, Oklahoma, Pennsyl-vania, Texas, Virginia, Washington, West Virginia, and Wisconsin.

With the completion of the Indiana, Massachusetts, and New Jersey financing now on the fire, the total of toll road issues sold in the 18 years since the modern turnpike movement began will be more than \$2.5-billion. When the rest of the states have executed their financing plans, the figure may be

• In the Future-Here is a sampling of some of the projects that are now shap-

In Florida, a group of 68 southern

investment banking firms is planning a leading part in financing a proposed 110-mi. toll highway from Miami to Stuart or Fort Pierce.

In Kentucky, officials from five states (Indiana, Kentucky, Tennessee, Georgia, and Florida) met last month and started work on a plan for a super toll highway from Chicago to Florida.

In Iowa and Kansas, toll road surveys

are going forward.

In Virginia, officials are not in favor of a toll road tie-in with similar highways in West Virginia and North Carolina-they favor a free road to handle this traffic. However, the 1954 legislature may create a special toll authority to build and operate a toll road between Richmond and Petersburg.

• Revenue Bonds-The security issued to the investor by the state turnpikebuilding agencies, as a rule, is a revenue bond, with provision that funds for both interest and amortization will be provided from the tolls collected from users of the road. There is, of course, no guarantee that traffic-and tolls-will continue sufficient over a period of thirty years or so to perform the interest-amortization job. Some issues, like those of the New York State Thruway and New Jersey Highway authorities, are state-guaranteed. Others, like the New Jersey Turnpike issue, are not.

To date, however, most of the turnpikes have been paying out. Record carnings have put the 327-mi. Pennsylvania Turnpike bond redemption program seven years ahead of schedule.

The need of the various toll road agencies to keep their interest and bond amortization payments on schedule-if they wish to borrow additional funds for more building-in effect provides a safeguard for the bondholder almost as effective as an actual state guarantee.

One of the best arguments in favor of keeping toll road agency credit good is that it helps if more money is needed, not only for additional projects but also to finish roads for which original loans proved insufficient. West Virginia, for instance, must raise more money to add to \$96-million borrowed to build a tumpike (BW-Sep.5'53, p114). And the Kansas Turnpike Authority has found that costs of a proposed superhighway have skyrocketed from an originally estimated \$100-million to possibly \$120-million.

· Close Watch-In the future, as in the past, turnpike bond buyers-



Through these Portals pass the Great Motion Pictures

★ Motion picture and television producers all over the world specify Pathé Laboratories for their film processing because Pathé is the leader in quality and service.

Pathé Laboratories is one of the Chesapeake Industries' family of distinguished companies.

Pathé Laboratories shows the way to the nation's vital film-processing industry because Pathé keeps ahead of the field in every phase of production.

Pathé was first to process the new 3-D color films. Pathé will be first to process a CinemaScope motion picture made by an independent producer. In color, Pathé is first with the great new Pathécolor film that gives Lifelike color in every scene—and

24-hour processing . . . tremendous advantages to the producer and director.

To meet these new developments—plus the volume of black and white rush-film processing now required by television—Pathé built two new laboratories, in New York in 1948 and in Hollywood in 1952. These new laboratories are ahead of the field in every phase of film processing and daily results on the nation's TV and movie screens prove it.

Forfull information on Pathé's film processing benefits and services, write Pathé Laboratories, 105 E. 106th St., New York, or 6823 Santa Monica Blvd., Hollywood.

Pathé LABORATORIES, INC.

Subsidiary of

CHESAPEAKE INDUSTRIES

PATHE LABORATORIES INC. • THE V. D. ANDERSON CO. • VIRGINIA METAL PRODUCTS CORPORATION LATHROP VANDEWATER PAPER CO. • EAGLE LION STUDIOS, INC. • TELEVISION CENTER, INC. PATHE REALTY CORPORATION • THE VAN SWERINGEN CO.



They're helping deliver your morning milk

Perhaps you didn't know that armed guards are needed to bring you pure, fresh milk.

Malayan tin miners couldn't work without defense against Communist guerrillas. And without tin for milk cans and dairy equipment, there wouldn't be as much milk on American tables.

Protecting milk and other foods is only one of the important ways tin works for you today. In new alloys, in new products, versatile, plentiful, economical tin is making life easier and pleasanter for all of us.

Tin-nickel, for example, makes an even more durable and decorative bright plating for your automobile than chromium does—and saves 65 percent on nickel.

Tin-titanium is a still newer, highstrength, easily welded alloy for jet aircraft parts.

And in the wonder world of modern chemistry, tin compounds can be used to do hundreds of jobs better—at lower cost. No other metal combines all the properties of tin. Tin is inert, nontoxic, friction and corrosion resistant. Tin can be easily plated in very thin layers. Tin is highly malleable, second only to gold.

Above all, tin is economical to use. And with American industry continually discovering better products and better ways to make them, we believe that more and more tin will be used in the future.

Over a third of the world's tin is mined and smelted in Malaya. And this famous refined Straits Tin, over 99.87% pure, is world renowned for its absolute reliability of grade. Ask us for any information you may need about Straits Tin.

TIN NEWS, is sued menthly, covers noteworthy current developments in the production, marketing and uses of tin. Write for a free copy.



THE MALAYAN TIN BUREAU

Dept. 161, 1028 Connecticut Ave., Washington 6, D.C.

particularly institutional investors like insurance companies and banks—can be expected to watch toll road affairs closely. The financial community will be the first to be heard from if, for instance, tolls are diverted to any purpose other than that stated in the bond indenture.

In the case of West Virginia a year ago, legislators thought they had voted approval of a four-lane highway "with multiple wings and divided center." The bond convenant, however, specified a two-lane highway with two additional lanes to be constructed at some future date. Result: The courts upheld construction of a two-lane road.

• Hungry—Institutional investors are also keeping a close eye on public officials in many states who are viewing the toll road as a possible source of funds for general purposes.

Connecticut, for instance, originally planned to collect tolls on the Merritt and Wilbur Cross Parkways only until the bonds behind these roads were paid off. Now, however, a law has been passed permitting the state to continue to collect tolls after the bonds are amortized, and use the funds for the construction and maintenance of other roads.

In New Jersey, political circles are already talking about the use the state might make of the yearly \$30-million its New Jersey Turnpike might bring in, free and clear, after the bonds are paid off.

• Quick Reflex—The investment community showed last month how fast it can hit the ceiling if the equity of bondholders in toll receipts is threatened. The Ohio State Board of Tax Appeals handed down a ruling that Ohio Turnpike Commission property was not exempt from taxation. The ink on the ruling was scarcely dry before the Wall Street bond sector was burning up the wires to ask if this meant that every county and municipality through which the turnpike passed could slap on a land tax assessment.

The Ohio tax board quickly stated the ruling was "procedural," and did not necessarily mean tax claims on the toll road. The ruling merely placed on the board the burden of determining whether the turnpike property is taxable, said Ohio State Attorney General C. William O'Neill—who last July declared the General Assembly had exempted the turnpike from taxation.

And, said Turnpike Chairman James W. Shocknessey, when informed the ruling had perturbed dealers in Ohio turnpikes bonds: "The dealers should delete the ants from their pants and they'd feel a lot better."

The Ohio incident, however, underlines the watchdog role that bond marketmen and investors are playing in the turnpike financing picture.



MY COUNTRY, 'TIS OF THEE

SWEET

D OF LIBERTY . . .

Home of the ice cream cone . . . the hamburger on a roll . . .

and one's preference right off the ice . . . yours by the spending of just those few American

pennies, which in vast areas of our world today are the grim exchange for mere existence.

For only in this country . . . where government of . . . by . . . and for the people . .

is perpetuated solely thru the will of the people . . . are these simple habits . . . and a

thousand similar pleasures of a free and independent land . . . just around the corner.

This is America . . . Let's preserve it!

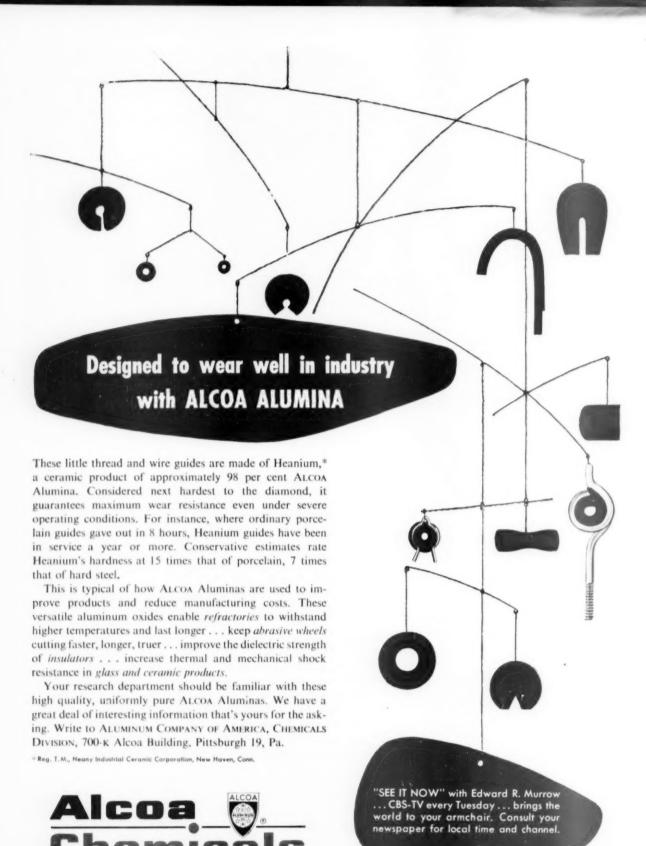
Character is the vital measure of a nation's strength and stability . . . and as with the state, so it is with those who contribute to its maintenance and safety. >> By 1927 American aviation had begun to fulfill the promise of its ultimate stature in defense, transportation and business utility. >> Air Associates, comprised of research and development, manufacturing and marketing, was founded in answer to those needs. >> Today, the character of our organization is the motivating force which makes available the finest aviation products the world has ever known.

SSOCIATES, INC.

A. E. ashman

DIVISIONS: ATLANTA . CHICAGO . DALLAS . GLENDALE . HACKENSACK . MIAMI . ORANGE . TETERBORO

NUMBER ONE IN A PATRIOTIC SERIES . REPRINTS ON REQUEST



ALUMINUM COMPANY OF AMERICA

PRODUCTION

U.S. Industry Adopts Foreign Techniques

- Metal-working trades lead in the importation of methods from the old world.
- Chemicals and optics are second and third, with electronics a bad last.
- Mostly, European developments need a lot of adjustment to our cheap materials, costly labor.

To the home folks, an expert usually means someone from the next county. Lately, U.S. industry seems to be feeling the same way. Experts often are engineers from foreign countries: More foreign—and usually European—inventions and techniques are being put to work than ever before.

The last previous turning to foreign sources came after World War I, when American industries patterned their research on German methods. This time the trend is broader. Here are just a few of the individual fields that have turned to European developments:

Foundry. Shell molding, the use of thin, plastic-reinforced molds to form a metal casting, was introduced in Germany during World War II. Now it's a standard technique in many American foundries.

Steel. A long-time dream of steel makers is to turn cold metal into the finished form without all the steps needed in present-day steel mills. Continuous casting, developed by the German, Junghans, provides the answer (BW-Aug.28'48,p21). Allegheny Ludlum has had four years of pilot plant operation with the process. Not long ago, Atlas Steels, Ltd., announced that it is installing a commercial version of a continuous caster.

Petro-chemicals. Another German development, the Fischer-Tropsch process, makes a variety of liquid fuels from coal, coke, or natural gas. The process, now used in chemical plants, could prove to be a lifesaver, come the day when domestic oil reserves are exhausted. It would make it possible to get oil from shale.

Motion pictures. The secret behind Twentieth-Century Fox Film Corp.'s CinemaScope—the Robe is its first major movie—is a fancy kind of lens invented by the Frenchman, Henri Cretien (BW-Jul.25'53,p60). And the chances are that CinemaScope will lead the current pack in dimensional-type movies. Some industry people think it

may entirely kill off the 3-D types that require colored spectacles.

The technological developments of European nations have been pretty well proportional to the scope of their industrialization. In a popularity contest, most U.S. engineers would rate the nations in this order: Germany, Britain, France, Switzerland, and Italy.

U.S. importations from these nations haven't been evenly distributed among all industries. The metal-working field is at the top, with chemicals second, and optics third. Electronics is at the bottom of the list, for our stress on mass communications by telephone, radio, TV, and industrial radio has put us way out in front.

• Revamping—Few if any foreign inventions have ever been handed to industry on a silver platter, ready for use. Some pharmaceutical and chemical processing has come to the U.S. in packaged forms. But most other inventions—notably those in metal-working and electronics, have had to be refined and polished for use in U.S. operations.

Take the process of shell molding. In blueprint form when it first came from Germany, the technique looked like the answer to many of the foundry problems. But it had the basic drawback of being still a craft, not yet improved to fit into mass production. So it was in the U.S. that founders and equipment manufacturers took much of the manual work out of shell molding by developing machinery that handled some of the production steps automatically.

• Economic Difference—There is one basic reason why U. S. engineers generally have to revamp European techniques: the gulf that lies between the economics of Europe and America. Europe traditionally depends on cheap manpower and expensive raw materials. In the U. S., it's the other way around.

Generally, engineers from Europe and the U.S. can agree on the technical theory of an invention. But the European will design, say, a chemical plant that needs an army of human operators. That's no good for America, where companies demand plants loaded with automatic instruments and controls, approaching full automation as nearly as possible.

These differences in economics haven't prevented European and U. S. industrial engineers from building up close relations since World War II, especially on the social, rather than the business side. Companies swap information, keep one another updated. It's through such channels that American companies have been able to secure foreign inventions (and sometimes technicians) for use in their own plants, or to be let out on a licensing basis.

A rare few have technical scouts prowling through foreign countries on the hunt for inventors with wares to peddle. But there is hardly a manufacturer who feels that he learned any useful technology from the foreign teams that visited the U.S. under the sponsorship of the Foreign Operations Administration, and which were formerly handled by the Council for Economic Development.

• Licensing — Consulting firms—technological horse-traders who have acquired licenses for foreign inventions—have done the most to introduce the new methods in the U. S. The chemical plants division of Blaw-Knox Co., Pittsburgh, has corralled several different processes that it engineers for its clients. Besides the Fisher-Tropsch process, Blaw-Knox has licenses for:

• A German tonnage-oxygen method that has low costs for installation and operation. This Linde-Fraenkl process is a natural for supplying big amounts of oxygen to steel furnaces and chemical plants.

• The Ruthner (German) technique for recovering the spent acid used in taking the scale from semifinished metal products. The method has two aims: (1) using the pickle-liquor over again, and (2) eliminating the problem of its disposal, a headache in industrial areas.

Blaw-Knox's division, like similar companies, designs these processing plants, applying the research and development of the foreign outfit with which it works. Blaw-Knox has one practical advantage: Its other divisions are specialists in metallurgy, and the design and fabrication of plant equipment. As a result, it can frequently take a foreign

the business gift that's never been given before

This year give the writing magic of Waterman's Sapphire, the world's first pen with a jewel for a point.

Truly, there's never been such a pen—or such a business gift! A pen in every way worthy of the name Waterman. A gift that is appropriate for everyone on your list. A business gift but personal as well—to be used and appreciated for long years to come.

Best of all, the Sapphire is the Christmas business gift that's never been given before—one that will tell customers and friends you cared enough to send something unusual, something fine.

It's the gift that will write good will for you for years.

Waterman's Sapphire in 1/30 10K rolled gold plate retails for \$6, in gleaming chrome, \$3.75. Send coupon today for quantity prices.

Waterman's

WORLD'S FIRST AND FINEST PEN WITH A JEWEL FOR A POINT

Free for executives

Waterman's Portfolio of Business Gift Ideas—full details on all Waterman writing instruments for business gift giving, Send for your copy today! Waterman Pen Company, Inc. Department B-1

Gentlemen: Please send me Waterman's Portfolio of Christmas Gifts, plus full details on Waterman's Sapphire, the world's first and finest jewel-point pen.

Name____

Company______Title_____

Address____

process, and build a plant that suits U.S. engineering construction and operating standards.

 Off on Its Own—Not all foreign-born technology that has immigrated to the U.S. looks back to the old country for continuing support. During World War II, some yearlings had to fend for themselves without the help of their European developers.

Thus, before Pearl Harbor, the powder metals industry banked on a lot of European research for its progress in the U.S. When the war cut that pipeline, the pressure of the war program built up powder metals to a point where they were years ahead of foreign development. Some people even feel that the technique still hasn't cut a place for itself in European production.

In the U.S. it has boomed. Before a meeting of foreign and U.S. experts sponsored by the Foreign Operations Administration, K. H. Roll, a member of the Metal Powder Assn., reported the operations of one U.S. manufacturer. National Cash Register Co. now uses more than 90 different metal-powder parts in its output, is tooling up for as many more. Today, National Cash Register has an annual capacity of 36-million parts, an output that European companies can't match.

• Looking Ahead—In their long-term planning, some U. S. manufacturers are looking toward the day when they'll be faced with the high costs of second-rate resources, just as European industries are now. That's why they keep boning up on foreign practices that are now too expensive or otherwise impractical for their operations.

U. S. steel makers, for one, know the ins and outs of the European industry as well as they know their own. Republic Steel Corp., Cleveland, has spent time and money studying Swedish steel making, especially because of the high price of making coke. Coke currently costs from \$12 to \$20 per ton. The payoff from the Swedish method is that it saves up to 100 lb. per ton of coke.

So industry here will be ready if in the future, it should have to switch its techniques due to raw materials depletion or war needs.

• Capital Shortage—The future of Europe's technology, a foreign expert will tell you, is far from rosy. Since the war, there has been a shortage of venture capital, money to finance developments that don't always pay off. To start with, companies, especially those in the chemical industry, have had low returns on their plant investments. Their budgets have barely been able to carry the cost of basic research, and they are hard-pressed to put their developments into the pilot plant stages. To a U. S. engineer, the big worry is that eventually the European oasis will get a little low, if not entirely dry.

Get this New High in Light Output

plus Sylvania's

Money-Back Guarantee

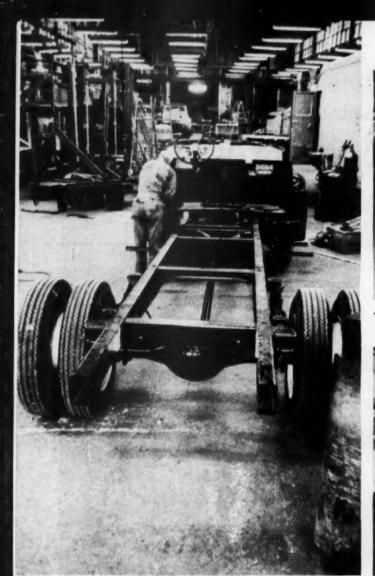


A New Level of Lighting Value

Sylvania Fluorescent Lamps now contain STABILIZED PHOSPHORS... an exclusive interior coating technique... resulting in longer lasting brightness. Actually you get a bonus of light worth more than the cost of the lamp itself. Another reason why Sylvania can cover its lamps with a money-back guarantee. For full, dollar-saving details see your Sylvania Representative or write Sylvania.



Sylvania Electric Products Inc., Dept. 3L-1210, 1740 Broadway, New York 19, N. Y. In Canada: Sylvania Electric (Canada) Ltd., University Tower Bldg., St. Catherine Street, Montreal, P. Q.



STRIPPED-DOWN truck chassis is the starting point of a profitable custom-body business for Gerstenslager Co., Wooster, Ohio.



Whichever kind of body is being made, the first step is to lay a wooden floor. Then carpenters erect a wooden frame (above).

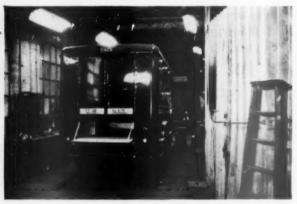


4 Electrical specialists lay out the complicated wiring required to operate exhibits and brighten up the interior for display.

Tailoring a Truck Body That Will



BOOKMOBILE is one of three main types of custom bodies built by Gerstenslager. It started the special-body boom after the war.



MAIL TRUCK was the second specialty to develop after the war. In volume it leads the other two, with 8,000 sales since 1946.



2 Raising the roof is an easy job for the carpenters when they're able to work from a catwalk built in at a convenient height.



3 Cabinetmakers install the basic display equipment, but customer's design man on the scene has the last word on details.



5 Metal workers lead the joints in the roof sheathing to make a smooth curve in the streamlined exterior. Then come the . . .



6 Final steps of painting and lettering the finished body. This unit is a bookmobile or library on wheels (see below, left).

Be a Rolling Show Room



DISPLAY VAN is the newest and potentially most profitable of the special designs. Many companies find sales resistance melts when they send displays to the customer's door.

Since the end of the war, a number of big-name companies have taken to hauling equipment displays around the country in special vans. They figure that few customers can resist at least looking inside, particularly when the van's all prettied up and parked right at the doorstep. The job of getting these industrial road shows ready to roll fits handily into the custom-body business of Gerstenslager Co. of Wooster, Ohio (pictures).

Gerstenslager is a well-known name in the custom-body business. In the horse and buggy days, the company, which dates back to 1860, made buggies. Since 1918, it has been making bodies for moving vans, furniture vans, refrigerated meat trucks.

But display trucks are fast becoming



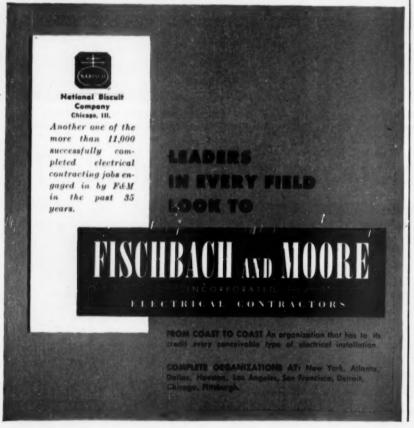
NEW

You are unvited to send for your copy of the beautiful new brockure on lawa. It has many interesting facts you'll need to select your next plant site.

Where PROFIT and PLAY pave the WAY!

IOWA is the land of gracious living, where more alert industrialists are stepping up profit and enjoying life in the land of plenty. Far from the congested areas, Iowa affords more leisure hours when you are brief minutes from home, work, golf, fishing or hunting. In the heart of one of the world's richest markets and the source of agricultural raw materials, you'll find that it's good business to live longer in wonderful Iowa. Write for your copy of "Industry's Road to Opportunity." 417 Central National Building, Des Moines 9, Iowa.

IOWA DEVELOPMENT COMMISSION



"... currently the hottest item in the shop is a unique telescoping van ..."

TAILORED TRUCK starts on p. 78

the booming end of the body business.

• Self-sufficient—In costs, the company has an edge over the 100 or so other custom-body shops that will take orders of this kind. It's the only wholly integrated company in its field. It produces all its stampings in its own stamping division, makes many of its own metal parts. And other shops that have to buy stampings are likely to have higher production costs.

• War-stimulated—The war was indirectly responsible for giving Gerstenslager its edge; the rest was a combina-

tion of luck and planning.

The government installed stamping equipment in the plant during the war when the company was asked to make cargo trailers. Right after the war, when it went back to making custom truck bodies, the company purchased the stamping equipment. Management had discovered that the machinery speeded production and eliminated many hand operations that were part and parcel of the custom-body business.

• Branching—The new equipment also

 Branching—The new equipment also helped the company spread out in new directions. Bookmobiles (traveling libraries) were one of the first new lines the company went after. Salesmen visited conventions of library associations and snared a good part of the business.

The company also went after contracts to replace antiquated mail trucks of the U.S. Postal Service. Of 17,000 new vehicles put in service by the post office in recent years, Gerstenslager

built 8,000.

• Display Idea—In 1947 Westinghouse Electric Corp. approached the company with an idea for a truck to carry equipment displays around to its industrial customers. Gerstenslager engineers decided they had the know-how for the job. Since then the company has built some 30 display trucks for different industrial customers. Another 20 or 30 are on the drafting boards.

Some are only ideas for salesmen to present to prospects. Others are at the contract-signing stage. The company's eight salesmen are pushing this end of the business hard. The Chicago man alone expects 20 orders this year.

• Accordion-pleated—Currently the hottest item in the shop is a unique telescoping van being built for Carborundum Co. It's regulation size on the road. But when it pulls into a plant, a special hydraulic arrangement opens it out to accommodate about 50 spectators. This gets around the problems



When commute trains flash overhead...

National precision oil seals will protect their performance

When 100 miles is a short commute, trains will be masterpieces of precision. And, their performance—even safety will depend on National Oil Seals and O-Rings.

Thirty years ago seals and O-Rings were virtually unknown. Today they are vital parts used in all kinds of equipment to retain lubricants, keep dirt and water out. National pioneered such seals, and today is a leader in the field.

Perhaps National precision seals can improve your product's performance, lengthen its life or make it easier to assemble or service. Our long experience is at your disposal.

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dalias, Detroit, Los Angeles (Downey), Milwaukee, Newark, Van Wert (Ohio), Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Wert, Ohio. Products: Oil, Fluid and Grease Seals, O-Rings, Airtron* Ducts, Silicane parts, Shims.



Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

Blast Clean



If you need help-

removing scale, rust, dirt, paint from bridges, buildings, structural steel, sheets, plates or for general maintenance

...a Pangborn Blast Cleaning Machine will do it quickly and economically. Accurate regulation of abrasive flow to fit the particular work saves time and abrasive.

Equipped with moisture and oil separator. Rugged construction. Ideal for plant maintenance. Available in six types, stationary or portable \$188 and up.

Write to Pangborn for latest information on Air Blast, Wet Blast, Soft Abrasive Blast and Unit Dust Collecting Machines.



BLAST CLEANS CHEAPER

with the right equipment for every job

PANGBORN CORPORATION, 4200 Pangborn Bivd., Hagerstown, Md.

Gentlemen

Please send me without obligation Blast Machine Bulletin 100A and Unit Dust Bulletin 916.

Name

Firm

Addre

City

......Zone.....State.....

in most regulation-size trucks of creating enough room for people to stand in.

• Big Tag-Prices of display trucks vary considerably. Generally they run \$20,000 to \$30,000 without chassis. The chassis usually adds another \$4,000 to \$5,000. If a customer has no definite chassis make in mind, Gerstenslager will name a type to meet the specifications. The company's major concern, however, is seeing that the chassis arrives on schedule and meets specifications of the truck body design.

When the company first got into the display truck business, management considered hiring a creative display man but decided against it. Usually, the customer has his own ideas about the interior display features of a truck. So Gerstenslager permits the customer's representatives to work on the display while it's in the shop. That way, if any alterations are needed, they can be taken care of on the spot.

• Many Crafts—Just making the custom body is complicated enough. Here are some of the skills required: cabinet-makers; woodworking machine operators; sheet-metal workers including cutters, formers, solderers, finishers; all types of welders; riveters; high- and low-voltage wiring specialists; specialists in installing air conditioning, heating and lighting equipment; painters, letterers, wood finishers; plus the usual maintenance crews.



TV Show: Construction

Sidewalk superintendents in Chicago no longer have to squint through knot holes to get a look at their favorite construction job. Now they can watch the job over television at the site. The TV demonstration above is part of a project investigating whether closed-circuit TV is a useful aid—particularly for time studies—in putting up large buildings. Currently programmed is a 23-story building that's going up on the site of the old Edith Rockefeller McCormick mansion.



Your Sturgis dealer is now showing both executive and stenographic chairs with fiber glass bases. What's more, these chairs may be selected with the visible steel parts finished in STURLON®, the extraordinary new finish which has 10 to 20 times the abrasion resistance of other finishes, is warm to the touch and is non-corrosive. You can't beat that combination!



Noiseless!

The sound deadening characteristic of fiber glass insures virtually noiseless movement of the chair, even on rough and uneven floors.



Smart, beautiful patterns

The glass fiber formations produce a pattern of distinctive beauty—introducing a brand new decorative note into office chairs.



POSTURE CHAIRS

THE STURGES POSTURE CHAIR COMPANY . STURGES, MICHIGAN

For complete information and the name of your nearest dealer, Write to The Sturgis Posture Chair Company, General Sales Office, 154 East Erie Street, Chicago II, Illinois

Dirty Hydraulic Systems cleaned in 50 hours or less by SUNVIS H.D. 700 OILS

No Loss of Production

Sunvis H.D. 700 Oils

- remove sludge and gums without affecting packings
- pick up contaminants
 and carry them to the filter
- prevent rusting of clean parts
- are available in viscosities to suit all hydraulic pumps

Learn more about the advantages of cleaning dirty hydraulic systems with Sunvis H.D. 700 Oils. Call your local Sun Office or write Sun OIL COMPANY, Philadelphia 3, Pa., Dept. BW-10.

INDUSTRIAL PRODUCTS DEPARTMENT
SUN OIL COMPANY



PHILADELPHIA 3, PA., SUN OIL COMPANY LTD., TORONTO & MONTREAL

PRODUCTION BRIEFS

Stream pollution, long a touchy subject with Wisconsin pulp and paper companies, is now being controlled by an evaporation process at Northern Paper Mills, a subsidiary of Marathon Corp. Spent sulfite liquor, a paper mill waste, is reduced to a 65% concentration of solids, atomized with steam, and burned with powdered coal in industrial boilers.

Powdered metallurgy (BW-Mar.28'53, p43) is getting a big boost from Yale & Towne Mfg. Co. A new division has been formed in the company to unify under one management the recently acquired Powdered Metal Product Corp. of America (Franklin Park, Ill.) and American Sintered Alloys Division (Bethel, Conn.) acquired in 1952.

Multiple sound tracks, for stereophonic sound in motion pictures, can now be applied simultaneously. Minnesota Mining & Mfg. Co. has devised a process and an automatic machine that permanently bonds a new Scotchtrack laminate tape to movie film at the rate of 125 ft. per min.

Metallic beryllium in the form of extremely pure and highly ductile flakes is being made available for the first time on a commercial scale by Beryllium Corp., Reading, Pa.



Parasol for Tanks

The tank with a roof is one model that Ordnance Corps.' designers never dreamed of. The corrugated-metal canopy was rigged up by engineers of Westinghouse Research Laboratories, shades the tank's interior as they are working on its control equipment.



The latest example of Multigraph Paperwork Magic

NEW design! New features! A duplicator for seated operation with convenient side delivery of finished work. This new model Multilith 81 is the newest thing in duplicating! Wherever shown, it is being hailed by businessmen because of its unique design ideas and the opportunities it offers for increasing paperwork efficiency.

With this new model, or others in the complete Multigraph line, you write once. Blank paper is then transformed into as many sharp, clear, permanent originals as you need. You can reproduce in black or colors, complete with variable information, in a single operation. Multigraph production machines simplify the reproduction of your business records—whether they be typed, handwritten or printed material, drawings, photographs or any combination. Quantities? You can economically produce half a dozen or many thousands. No other duplicating process does so many things so well.

Why not put Multigraph Paperwork Magic to work in your business? Call the nearby Multigraph office for a demonstration or write Addressograph-Multigraph Corporation, Cleveland 17, Ohio—Simplified Business Methods.

WRITE FOR THIS BOOK:

An illustrated 20-page book describing the Model 81 and some of its many uses is yours for the asking.



Addressograph-Multigraph

PRODUCTION MACHINES FOR BUSINESS RECORDS

SERVING SMALL BUSINESS . BIG BUSINESS . EVERY BUSINESS

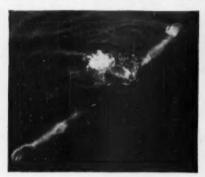
NEW PRODUCTS

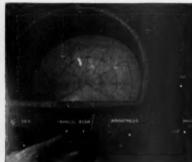
Demonstrating its new underwater detector, Minneapolis-Honeywell used a diver as stand-in for a school of fish.





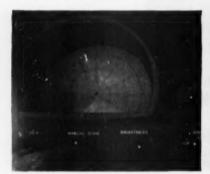
Frogman Dick Ferg leaps into New York harbor and . . .







. . . vanishes. Through sound waves, engineers see his path as dot on screen so . . .







. . . boat can follow Ferg (or fish), pick him up when he surfaces. It's . . .

Putting Sound to Work for Fishermen



SOUNDOME in boat's keel that sends out waves, picks up echoes is key to system.

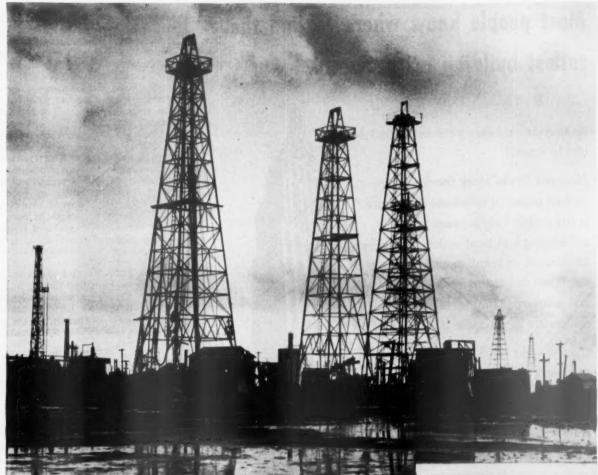
Longshoremen, tug captains, a flock of spectators and newsmen stood by fascinated last week as a frogman dove and surfaced his way past the piers of New York harbor. The spectacle was not just a stunt. Diver Dick Ferg was hired by Minneapolis-Honeywell Regulator Co. to demonstrate a new underwater detection device that makes it possible for fishermen and navigators to "look around" under water.

The setup, which Honeywell engineers claim can locate undersea objects and surfaces at distances up to 1,600 ft., is a cross between a depth sounder and radar: It's underwater radar that

uses sound waves instead of radio waves to do the spotting.

Honeywell installed the Sea Scanar aboard one of the newest tugs of the Moran Towing & Transportation Co., Inc., for its first public showing. Since most self-respecting fish steer clear of the busy harbor, the company hired 19-year-old Ferg, co-owner of a spearfishing equipment company in Long Island City, to play the part. As he went through the motions, a dot of light on a screen (pictures) on the tug's bridge showed engineers his course so the tug could follow.

· Operation-Basically, the Sea Scanar,



From crude to crankcase— with an assist by SYNTHANE

Without oil there'd be no automobiles or airplanes, fewer plastics, soaps, drugs, floor polishes, cosmetics, insecticides.

In one form or another, petroleum and petrochemicals are almost as important to us as the air we breathe. And in one way or another, Synthane plastic laminates are equally important to petroleum production and processing.

The reason is understandable. Synthane is a dependable material with many uses.

Because it is wear-resistant and tough, yet easy to machine, Synthane is used for components of oil well cementing equipment. Because Synthane is strong and corrosion-resistant, it is excellent for pump valves, piston rings, and compressor plates in tank-farms and refineries. Because it is a good insulator, Synthane in the form of flange insulation provides cathodic protection for pipe lines. Because it is a good moisture-resisting dielectric, light weight Synthane is used in geophysical survey equipment and oillocating instruments. Wear-and-corrosion resistance make Synthane desirable for flow-line valve-sent inserts.

Because of all these valuable properties, plus many more, Synthane may be a material you can put to profitable use. To find out, get the complete Synthane Catalog. Write to Synthane Corporation, 1 River Road, Oaks, Pennsylvania.



Synthane Valve Ball for all-well cementing equipment.



Piston rings for sour gas compressors, machined from Synthane.

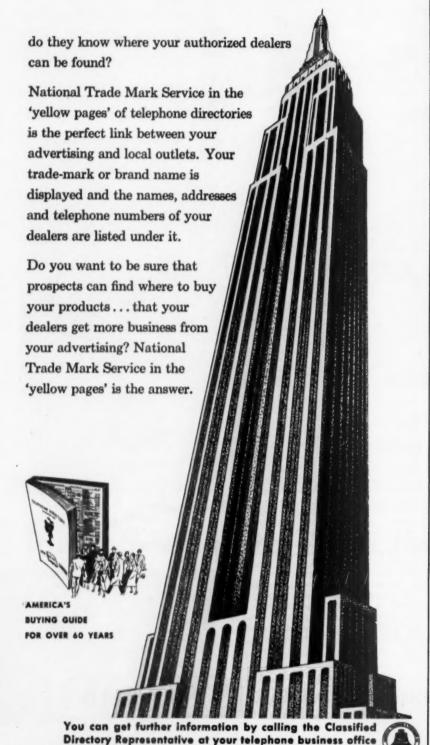


Bushings for gas meters.

Synthane-one of industry's unseen essentials SY



Most people know where to find the tallest building in the world...but



or looking in Standard Rate and Data (Consumer Edition)

which took two years of research and development, is similar to the depth sounders that came into prominence during World War II, mainly as antisubmarine devices. But where the depth-sounder ray points broadly down, the Sea Scanar's ray is narrow and more flexible. It can be swung in any direction up and down as well as ahead and abeam.

Here's how it works: A signal or burst of high-frequency sound waves is sent through the water in a narrow beam. When these sound waves strike the sea bottom or any object or material that differs from water, they are reflected back. The reflections or echoes are picked up and the length of time between the original signal and its echo can be measured (since sound travels through water at a rate of approximately 4,800 ft. per second).

• Three Parts—The Sea Scanar is composed of three compact units:

• A Soundome, which is lowered through the ship's bottom, contains the transducer that sends out the narrow beams of sound waves and picks up returning echoes.

 A transreceiver, located anywhere in the ship, which generates the electrical pulses converted into sound by the transducer and amplifies the weak returning schoes.

returning echoes.

 An indicator, located on the bridge, which includes a loudspeaker to make echoes audible, a screen on which the echo appears as a dot of light, and all the controls needed to operate the equipment.

• Scanar's Future—The Sea Scanar will not eliminate the need for charts or maps, nor will it replace human judgment at the helm. It will provide a valuable aid to the marine navigator both in locating hidden underwater obstacles and in checking positions in relation to charted depths, obstructions, and channels.

By looking ahead and to either beam as well as below, the Sea Scanar will help seamen navigate closer to shore with safety. It will help to locate buoys and dredged channels as well as nearby vessels at night or in heavy fog. It also has possibilities in many types of salvage operations.

But the new product will probably mean most to commercial fishermen. It can reach out and find fish at considerable distances and depths. The Sea Scanar eliminates blind hauling since nets don't have to be set or pulled up unless the scope shows the presence of

fish.

With practice, fishermen can estimate the density of a school and determine when the maximum number are in the nets. On coastal runs for herring or bait, the Sea Scanar speeds work and saves time by making it possible to check small coves and bays

Vapor-from-paper stops rust



← Simply wrapped in Angier VPI without oiling



. . and stored clean; ready for instant use. (GAR WOOD PHOTOS)

Saves greasing _ Saves degreasing!

EASIEST way to keep rust off metal parts is with vapor.

The photos show how simple it is

- cylinder rods are just wrapped and stored! For 4 years now, the Richmond, Calif. division of Gar Wood Industries has used this fast, modern way to stop rust - Angier VPI Wrap.

VPI* gives off a protective vapor that takes the harm out of air and moisture. No oil or grease is necessary. No big slushing tanks. No surprise, then, that Gar Wood's preservation costs dropped 60%.

Cleaning costs were eliminated. And work areas now are cleaner and safer!

VPI-stored parts stay bright over week-ends or for months — even years. Proven in shipping, too — by VPI users in every branch of metalworking and by the government.
Send for "VPI Facts" and see how

much time you can save. Write: Angier Corporation, Framingham 7, Mass. * R-Vapor Rust Preventive. Angier VPI Wrap (2 gram) is made to conform to the government's specification on volatile rust inhibitors.

Does Your Management Know About VPI?





Hard work and a persistent ambition earn approbation for the budding starlet.

Canvases of the masters gain respect and value as time passes.

But not so with machine tools. With the first turn of the spindle their days are numbered. And as their peak of efficiency passes they become an ever increasing expense to the manufacturer who pushes them beyond their time.

If it's been some while since you have given the threading and hobbing operations in your plant the critical eye, perhaps you should call in your Lees-Bradner representative. He'll be happy to demonstrate how the new Lees-Bradner machines can pay for themselves in an amazingly short time.



quickly to obtain bait with every haul. In whaling, one extra whale a year pays for the equipment.

Source: Minneapolis-Honeywell Regulator Co., Marine Equipment Division, 1121 Westlake Ave. N., Seattle 9, Wash.

• Price: about \$4,900.

NEW PRODUCTS BRIEFS

A foam rubber mattress that folds up like a suitcase has been designed for people who want extra sleeping accommodations but lack storage space. Open, it makes a bed 24 in. wide, 76 in. long. 4½ in. thick. Folded, it's a hassock 17 in. by 24 in. by 19 in. Price is \$34.95 from Andco Foam Rubber Products Co., Cuyahoga Falls, Ohio.

Machinery mountings are now available to keep machines in place without bolting or cementing them to the floor. A line of vibration isolators that hold from 1 oz. to 12,000 lb. per isolator is being introduced by Barry Corp., 700 Pleasant St., Watertown 72, Mass. The mounts are designed to isolate machines from shock and vibration, to reduce noise, as well as to cut maintenance and installation costs.

Shipping cases for electronic instruments made of plastic reinforced with fibrous glass, formerly manufactured only for the government, are now offered commercially by H. Koch & Sons, 73 Beale St., San Francisco, Calif. Cases are waterproof, lined with molded hair padding to fit the contours of the particular piece.

Upside-down turntables for window and interior exhibits can be had from Gale Dorothea Mechanisms, 81-01 Broadway, Elmhurst, N. Y. Displays weighing up to 2 lb. can be suspended at any length from the turntable by wire, fishline, or nylon cord. A clock motor turns the display at 2 rpm.

Bench-evator is a low-cost work positioner especially suited for getting stacks of heavy sheet stock such as paper board or alloy sheet metals onto an inspection bench. It handles loads up to 500 lb. Manufacturer is Rodney Hunt Machine Co., Orange, Mass.

Fire ball, a decoration for Christmas trees, protects against flash fires. The 34-in. ball contains red-colored carbon tetrachloride. When temperatures hit 160F, a fusible metal spring breaks the glass, scattering the chemical over a wide area. It changes immediately to gas, which smothers the flames. It retails for \$2.95 from Fire Ball Corp., 2041 Market St., Philadelphia, Pa.



Versatile Standards for Passenger Preference

Fitting sleeping accommodations to traffic requirements is good business for railroads. Providing the type and quality which travelers want builds passenger preference.

That is why Pullman-Standard collaborated with operators, railroads and passengers in designing the new "S" type sleeping accommodations. And now the right combination of standardized "S" type open sections, roomettes, bedrooms, compartments or drawing rooms, best suited to traffic needs, can be included in a car. Distinctive appearance can be attained for each car by varying the color, decoration and fittings.

Thus, by standardizing accommodations, higher quality cars, designed to gain passenger preference are built more economically. Write for booklet describing standardized

"S" type sleeping accommodations.

WORLD'S LARGEST BUILDER OF FREIGHT AND PASSENGER CARS

SUBSIDIARY OF PULLMAN INCORPORATED

EAST ADAMS STREET, CHICAGO 3, ILLINOIS

BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON



Flexible bedrooms demonstrate one of the new "S" type design features. By removing a partition, two comfortable bedrooms can be made into one spacious unit for families or groups traveling together.

TOP JOBS



J. WIDMAN BERTCH is top man on the multimillion-dollar Plymouth account at N. W. Ayer & Son. It's a full-time job.



AT PLYMOUTH. Bertch makes the half-hour run from his own office to Plymouth headquarters almost daily.



AT AYER, DETROIT. In his own office, Bertch goes over layouts with Paul Packard (right) account copy chief.



AT HOME he relaxes with Mrs. Bertch. A one-time tennis and squash addict, he has shifted his hobby to gardening.



TOP SECRET. Bertch and Plymouth president Jack Mansfield study late models in auto company's X room. Ad campaign, of course, will be keyed to innovations.



OVER AND OVER AND OVER. For every ad that appears, scores of ideas, trials, variants have been discarded. Packard and Bertch will pick three from all these.



CHORES. Bertch irons out speech he wrote for delivery to Plymouth dealers . . .



. . . he works on promotion of Plymouth model plane contest . . .



. . . and makes periodic visits to dealers, to get feeling of the business.

Liaison Man at the Top

(Continues on page 94)



tainers for a solid 45 years, it's safe to say that you've developed the experience, knowledge and facilities to do a good job. And when you've been a consistent leader in the advancement of new uses for corrugated, you've developed a lot of right answers and helpful answers for shippers who have container problems. We can show you how a Fort Wayne corrugated container can get your product there safely and economically, put smiles on faces in your shipping department, and save you money.

> Call on us. We'll make good . . . and we'll make the right container for your product.

in making corrugated shipping con-

CORRUGATED FIBRE BOXES CORRUGATED PAPER PRODUCTS

CORRUGATED PAPER COMPANY

Sales Offices:

Chicago, Ill. Peoria, III. Hartford City, Ind. Indianapolis, Ind. Muncie, Ind. Vincennes, Ind. Washington, Ind. Holland, Mich. Jackson, Mich. Jersey City, N.J. Buffalo, N.Y. Jamestown, N.Y. New York, N.Y. Rochester, N.Y. Syracuse, N.Y. Utica, N.Y.

Akron, Ohio Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Lima, Ohio Harrisburg, Penna. Pittsburgh, Penna. Winchester, Va. Milwaukee, Wis.

Plants:

Rochester, New York Chicago, Illinois Pittsburgh, Pennsylvania Hartford City, Indiana



Southern Paperboard Corporation Port Wentworth, Georgia

". . . the man at the focal point of Ayer and Plymouth advertising skill . . ."

ADMAN starts on p. 92

Whenever he looked or listened this week, the U.S. consumer stood a better than fair chance of learning that Plymouth Motor Corp. had a new automobile to sell him.

He could escape this fact, of course, by not buying magazines and newspapers, by leaving his radio and TV sets turned off, and by closing his eyes tightly as he drove past highway billboards. But short of this isolation, he was almost bound to discover that the 1954 Plymouth-a "Big, Bright, and Beautiful" Plymouth-had arrived. What made this discovery about as

difficult as finding the pins at the end of a bowling alley was a mixture of two very effective elements at Plymouth -money and advertising skill.

The money, which buys print space and air time, is Plymouth's; the amount this year is more than it has ever spent before to chant the praises of a new car. The advertising skill belongs to people at N. W. Ayer & Son, Inc., which has handled the Plymouth account since 1943, and to people at Plymouth concerned with advertising. And the man at the focal point of Aver and Plymouth advertising skill, a man who has been laboring since May on the mass revelation that happened this week, is a 53-year-old Ayer vice-president, J. Widman Bertch.

· No Type-Bertch is as unlike the stereotype of the advertising account executive as Ayer is of the "typical" agency. At first glance, he looks as though he would be as much at home in a bank office as he is behind the vice-president's desk (one of 19 at Aver) in a drafty corner room on the 41st floor of Detroit's Penobscot Building. Superficially, at least, this may explain why he seems to fit so well

in the Aver setup.

Ayer, which is generally considered to be the oldest advertising agency in the U.S.-it was founded in 1869-is studded with specialists in all phases of advertising. This means that Bertch, important though his job is, does not mastermind the whole Plymouth account. Ayer president Warner S. Shelly admits that the account executive who masterminds practically every aspect of an account, holds it in the palm of his hand, and who can, if he chooses, transfer it to his pocket, wouldn't be happy for long at Ayer. Its operation is too much like the workings of a carefully departmentalized big business-which is exactly what it is. (Precise billing figures are a closely



PROVIDES ALL THESE

- 1. Direct, controlled radiant heat along and around the
- 2. High, uniform rates of heat transfer
- 3. Heat input to match any desired heating curve
- 4. Low residence time at temperature, where desirable
- 5. Complete combustion, with little or no excess air
- 6. Positive heat rate control at either high or low temperature operation

Petroleum and petrochemical heaters, featured by performance as exemplified above, form a part of the over-all Selas activities in the Improved Fluid Processing of air, gas and liquids. Removal of water, oil and vapors from instrument or process air and the phase separation of liquids are functions of other Selas refinery apparatus.

IFP* is not a piece of equipment ... nor simply a method. It is a combination of modern techniques and equipment, fitted to specific needs by engineers with refinery operation backgrounds.

A letter will bring you full details.

*Improved Fluid Processing



Heat Processing Engineers for Industry . Development . Design . Manufacture



alsynite is the ideal translucent architectural material. It is shatterproof, feather-light. Can be sawed and nailed, installs like corrugated metal. Economical. In seven colors in both corrugated and flat panels.



homes . . . for skylights, patio roofs, window walls, shower stalls, awnings, etc. Ideal indoors and out.



commercial ... for store fronts, office partitions, luminous ceilings, decorative effects, signs.



industrial...for unlimited daylighting...skylights, side walls, etc. No framing needed.

	COMPANY OF AMERICA
Dept. BW-	5, 4670 DeSoto St., San Diego 9, Cal.
Please se Alsynite.	end me new full color folder on
Hame	
Company_	
Address	
	** **
City	State

"... Ayer does not think in terms of 'managing an account' ..."

ADMAN starts on p. 92

guarded secret, but the trade publication, Advertising Age, makes an estimate. It is that last year Ayer's space and time billings plus its fees—the latter, for estimate purposes, being multiplied by six and two-thirds to bring them into proper relationship with space-time billings—amounted to \$86.5-million. This made it the fifth ranking ad agency in the world. • Representative—Bertch, a tallish, af-

Representative—Bertch, a tallish, affable, bald man, is not an account executive in the usual sense of the term, nor is he even called that. His title is account representative, and the distinction is intentional.

As account representative, he is intimately involved in the plans for how and where Plymouth should spend its advertising money, what tack its ads should take, and how it should say what it wants to say. But he doesn't manage the account the way the typical account executive in another agency might do.

Ayer does not think in terms of "managing an account." It thinks in terms of managing itself. Its lines of management, starting with chairman of the board H. A. Batten and president Warner S. Shelly, go straight down to department heads and branch office managers. Those people are responsible only to top management for the way they run their jobs. Lines of authority and responsibility are vertical; office managers and account representatives cannot cut across these lines.

This is usual procedure for most big business organizations. But it's not so usual in advertising.

• Departments—At Ayer headquarters overlooking the quiet of Washington Square in Philadelphia, there is a plans department, a media department, a copy and an art department, each headed by a man who is Bertch's coequal. It's up to these department heads to lay out Plymouth strategy and propose its advertising budget, to decide where the money should be spent, and to create the copy and art. Bertch will work closely with all these people, contributing ideas, suggesting changes, making additions. But he can't overrule them if he sees things one way, and they another. (Bertch has never run into a stalemate of this sort in the seven years he's worked on the Plymouth account. If he does, however, the clash will have to be settled by the court of last resort, Warner Shelly.)

This departmentalized setup has been an Aver hallmark for years. A good part of it traces back to Francis Wayland Ayer, the founder, who was not so much an ad man as he was a businessman, and who believed that a specialist's work. (The N. W. in Ayer was Francis Wayland's father; presumably the "& Son" device was used to give the new business an air of permanence.)

In any event, Aver's organization is markedly different from many other agencies. Its seven branches, for instance, are primarily service offices. They are not set up-as are many agency branches-to handle production on a regular day-to-day basis; they produce and place advertising only in an emergency. Further, there is no group system at Ayer. This device, common among big agencies, puts one man in charge of two or more accounts and assigns to him a task force of copy, art, and production people, so that, in effect, he acts as the president of a small agency with direct control over every step in the advertising process. Aver's art, copy, and media people work

only for their department heads.
• Liaison Man?—What does this leave for Bertch, this specialized breakdown of duties, this concentration of control in Philadelphia?

An obvious answer is that the job is simply a high-level liaison post—interpreting Plymouth's thinking to Ayer, presenting Ayer's work to Plymouth. It's partly that, but not simply. This business of interpreting thinking goes pretty deeply. Bertch's job is: (1) to have a complete knowledge of Ayer policies, organization, and operations; (2) to get the most complete and up-to-date picture possible of Plymouth; and (3) to tie all this knowledge together so that he can provide needed facts to both organizations.

Beyond that, he has to know the Plymouth advertising plan which has been approved, and on which Aver is working (and to which he contributes importantly), and make sure that this charted course is followed. He's expected to discuss his views with Aver people, to make suggestions designed to keep up the quality of work, and to fight for what he thinks is right.

• Influence—It's true that Bertch can't override the people who supply the pieces that wind up as the ads in The Saturday Evening Post, the St. Louis Post Dispatch, or as the commercial on a television show. He can't, but he doesn't have to.

The automobile business, Chrysler Corp., and Plymouth are Bertch's night-and-day preoccupation; no one knows the Plymouth account better than he. When in his judgment the advertising ought to follow one course rather than another, what he says carries a lot of weight. There is seldom a clash,

seldom any table-pounding. Bertch may simply say, "The idea's cute as a bug, Paul (Paul Packard, head copy man on Plymouth). But it doesn't come down heavily enough on the Hy-Style angle. It just doesn't say it." In nine out of ten cases, that's the end of it.

No one—on the outside—knows exactly how much Plymouth will spend for advertising this year. The trade, however, makes two guesses: (1) Plymouth right now is among the biggest of Ayer's 70-odd major accounts; (2) its advertising spending for 1953 will probably be in the neighborhood of \$6-million.

These, admittedly, are only guesses. But it is no guess to say that the heaviest concentration of that spending is in the fourth quarter—the time of the arrival of the new car, and an occasion that Detroit traditionally treats with the pomp of a minor coronation. The throning of the new king is precisely what Bertch has been working on since May.

• Morning in May—It all began, as Bertch's diary might show, on May 20—the day that Ayer first saw, and officially heard about, the new Plymouth. The place was Plymouth headquarters in Detroit, and the occasion an all-day meeting between Ayer and Plymouth executives.

On the automakers side of the table were Jack Mansfield, the president; William Bird, general sales manager; H. B. Heberling, assistant general sales manager in charge of advertising; Bruce Steele, assistant sales manager in charge of the field force; Arthur Dowd, director of merchandising; several other sales executives, and a battery of engineers and design people.

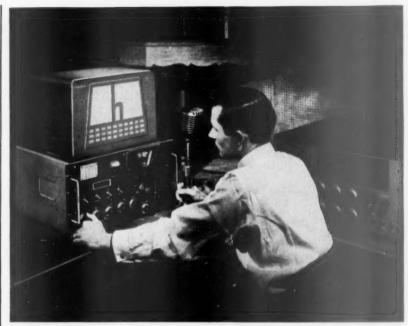
Ayer's representation, looking equally like a truce delegation in size, included Warner S. Shelly, Bertch, the vice-presidents in charge of art and copy in Philadelphia, two radio-television vice-presidents from Ayer's New York office, four copy writers, three layout men, two radio-television writers, two television artists, four men from the plans department, James W. McCandless of the Plymouth publicity staff, and Peter Stewart who works under Bertch as a

service representative on Plymouth.

An imaginary entry in the diary for May 20 might read: All-day briefing on new car. Main points to stress: new colors and interior styling; longer, lower look; emphasis on luxury; performance of Hy-Drive torque converter, power steering. Three lines, this year, instead of two. Will need new names.

May 21, the next day, another meeting at Plymouth: Asked to submit a list of names for the new lines. Discussed scrap photographs to be used as a basis for art work in ads. What angles will make the car look best?

May 22 to June 11: Busy, busy. The



Want to buy a radio for a thousand dollars?

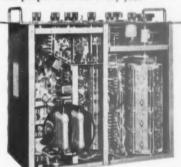
That price doesn't even include a speaker. Just a top-notch radio receiver that lists for \$975.00.

It's the Hallicrafters SX-73 all-wave receiver originally developed for the U.S. Army, and now sold mainly to people most likely to know a radio's true worth—"ham" radio operators.

It's one of the finest communication sets ever made by Hallicrafters, long famous for precision electronic equipment. Among its carefully selected components are Ward Leonard Stripohm resistors. These are the best vitreous enameled resistors money can buy, with ovalized cores and mountings that permit tight stacking. Yet their convenience and quality entail no price premium; these same Ward Leonard resistors are used in the lowest priced Hallicrafters sets, selling for one tenth the price of the SX-73.

Whether what you make sells for \$10 or \$10,000, it will certainly pay you to use the most dependable elec-

trical controls you can buy. Our engineers will be glad to help you select the proper ones for every job.



WARD LEONARD STRIPOHM RESISTORS (in circle) in underside view of Hallicrafters high precision SX-73 all-wave receiver. These wire-wound strip resistors will stand heavy overloads, are unaffected by adverse operating conditions.

Send for Ward Leonard's new 64-page catalog No. 15 which contains complete engineering data and criteria for resistor selection. Ward Leonard Electric Company, 68 South St., Mount Vernon, N. Y.





The NEW Carrier Gas-fired Unit Heater 46750, announced recently, is already a success.

Compactness makes it available for directional space heating (with space saving) in countless low-ceiling stores, garages, service stations, diners, vestibules, entrances, etc.

Simplicity is the key to its compactness. Gas is fired directly in the tubes of the leakproof one-piece heat exchanger, resulting in maximum heat transfer. I6-gauge ALUMINIZED STEEL is used for the exchanger. This exclusive Carrier feature adds years of service. Gas and fan shutoffs are completely automatic.

Carrier engineering means fine quality, handsome styling, exceptionally quiet operation and sturdy construction. The Unit is AGA-approved for all types of gas,

Corrier Gas-fired Unit Heuters come in both propeller-fan and duct types. Models available in 8 siscs ranging from 50,000 to 230,000 Btu's per hour.

WANT MORE INFORMATION? Call the Carrier representative in your Classified Telephone Directory, or write direct to Carrier Corporation, Syracuse, New York.



AIR CONDITIONING
REFRIGERATION • INDUSTRIAL HEATING

"... you have perhaps 100 rough ideas for ads on tissue ..."

ADMAN starts on p. 92

plans department is at work on the budget. How much will be spent by the fourth quarter? How much will be left for follow up. Better chart two plans, A and B, with B based on need for expanded campaign.

• The Theme—The main problem of the May 22 to June 11 period is to decide on what theme will work best. The styling and value are the strongest points, but the news for the announcement is in the styling. In any case, Ayer thinks it ought to plan for at least one splash ad, something completely unusual like last year's "peek through"

Plans and the copy department are now in high gear. Fifteen writers embark on the job of making word-magic with the basic selling points. Fifteen artists look over their shoulders and sketch their layout ideas on tissue. Now the problem: What do you decide on?

You have perhaps 100 rough ideas for ads on tissue. Out of these, you will have to choose a dozen or so themes to carry through on. Each theme will have to be broken down into units, each involving a series of separate ads—first the teasers, then the pre-announcement ads, the announcement ads—those for the newspapers, the magazines, separate layouts for the single pages and the spreads—follow-up ads, outdoor ads, commercials for radio and TV, and art for the TV commercials.

Spirited sessions. The pride of creation is stubborn pride. Everybody has ideas that need to be considered. All ideas can't win. You scrap this idea, but you pluck a phrase from it. You put it somewhere else. You champ, change, and chop. You throw away, throw away. You come up with a dozen themes.

Now the comprehensives—type and copy merged together for each of the themes. The approaches you like best you carry all the way through, from the teasers through the follow-ups. On others, you don't make a complete sec, but you go far enough to put the points across. Now you're ready for Plymouth.

• Climax—The diary entry for June 12 might read: We present the campaign at an all-day session. The full Ayer and Plymouth teams are on the field again. I preside.

First the budgets, the A plan and the B. Harry Groome, our top plans man on Plymouth, outlines these. It cats up the better part of the morning, but by noon we have their decision to

go ahead with the B plan-the one calling for the expanded campaign.

Paul Packard, head copy man on the Plymouth job, John Pullen, copy writer, and copy head Kenneth W. Slifer, then take over to present the comprehensive layouts on the themes we picked. Around the room are placards, showing every slogan Plymouth has ever used. Both sides of the table begin to chop at the ads, mix, and throw away all over again.

Plymouth likes the "value" theme, but prefers the style story in the announcements; we decide to hold the value theme until the first of the year. Styling and luxury will kick it off then, but which approach? It narrows down to "Big, Bright, and Beautiful," and we agree on that. We'll time the thing to shift gradually to the Hy-Style, Hy-Drive, Power Steering theme.

We wind up at 5:15. Something out

We wind up at 5:15. Something out of practically every theme has been merged into either the Big, Bright, and Beautiful or the Hy-Style, Hy-Drive series. And now we have complete authority to go ahead on the budget and the campaign.

• Follow-through—In the month between June 13 and July 15: The production wheels begin to turn. Traffic sets up the timing schedule, media begin to order space and time (this, of course, is the source of Ayer's revenue, as it is for all agencies. Publications and radio-TV stations normally pay the agency 15% of the value of the space or time it buys from them).

The art and copy are now being revamped. The ads that will have to lock up first—magazine color and newspaper teasers—take priority. Artists come out to study the car so they can get its spirit. Photographers shoot hundreds of stills and movie frames to get the car from every possible angle. TV art people arrive to prepare for cartooning the animated commercials. More photographs. Movie crews start shooting for TV and dealer playlets.

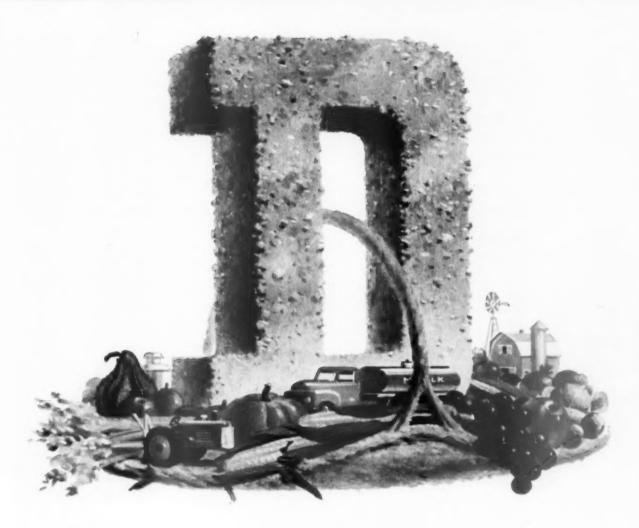
Meetings with Plymouth on the

Meetings with Plymouth on the dealer plan book—a portfolio to tell dealers about the advertising tools that are available to them.

Copy people want more details on power steering. The writers and Bertch go over it again with the engineers. They all drive the car again. The "gatefold" ad—an accordion-type spread that will run in The Saturday Evening Post and is this year's "splash"—isn't right. Type will have to be moved to the left and made heavier.

July 16: A month has now gone by since the start of production—a month of starting and stopping, correcting and revamping. But the art and copy for the magazine color ads are finished. Plymouth finally approves them.

Nearly every day in what would be Bertch's diary for summer, 1953, there



Bountiful Harvests...thanks to Chemistry

Thanks for today's bountiful harvests to the farmer, whose good practices have increased crop yields per acre over 28% in the past 15 years.

This has been made possible by chemical fertilizers . . . one of science's most vital contributions to man's welfare.

The Davison Chemical Corporation pioneered in the production of chemical fertilizers and through continued research produces a fertilizer that is easily applied to the soil and makes the plant food readily available.

This is one of the many ways that Davison helps to make "Progress Through Chemistry".

Progress Through Chemistry

THE DAVISON CHEMICAL CORPORATION

Baltimore 3, Maryland

OIL

STO

SERVING INDUSTRY ... SERVING AMERICA

You are always close to Continental Can with its 78 plants in the United States, Canada and Cuba, 17 field research laboratories and 66 sales offices.

DIE

MO

IN 50,000 QUARTS OF CANNED OIL YOU WON'T FIND ENOUGH DIRT TO COVER THE HEAD OF A PIN!

You could examine fifty thousand quarts of canned oil—or fifty million quarts—and not find enough dirt to cover the head of a pin.

At the refinery this absolutely clean, filtered-bright oil is packed under dustfree conditions. It goes into cans as clean as those used for foods. From the instant the lid is sealed on, nothing can enter or leave.

It is not so many years ago that Continental engineers first advanced the idea of canning motor oil. Now from 70 to 80% of all oil sold in service stations is dispensed from cans. Millions of motorists would no sooner accept oil that is not packaged than a housewife would buy milk ladled from a pail.

Tamper-proof cans make it easy to get the quality and grade of oil you want even when traveling. They enable the dealer to put oil into your crankcase fast, and without waste. And they permit the refiner who is proud of his product to identify it with his name and trade-mark.

Cans have been an important factor in making merchants of service-station operators. At almost any station today, you'll find lithographed cans made by Continental. They hold not only oil and anti-freeze, but light bulbs, fuses, brake fluid, tire-repair materials, grease, and cleaning, waxing and polishing compounds.

Continental people are constantly working to make better, more economical and more useful containers for the automotive and petroleum industries. It's a pleasure to service the alert men who keep America on wheels and provide "Oil at Your Service."

OIL PROCEETS WEEK IS OCTOBER 11-17

CONTINENTAL

CONTINENTAL CAN BUILDING

CAN COMPANY

TOO E 42md ST NEW YORK IT N Y

CONTINENTAL CAN COMPANY OF CANADA LIMITED, MONTREAL







FIRST DRUMS



PAPER CONTAINERS



BLEXIBLE PACKAGING



STEEL PANE AND DRIVE



CAPS AND COR



DECOWARE



For Luminous Ceilings at their Best...

PLEXIGLAS

The photograph above shows the excellent lighting that results from the installation of a luminous ceiling-diffusing panels mounted beneath fluorescent tubes-when the all-important panels are Plexiclas acrylic plastic.

approve the high level of illumination with low source brightness, and the absence of brightness contrasts. Architects like the fixture-free appearance. If you are interested in better lighting for offices, or banks, laboratories,

control and drafting rooms, schools, and hospitals, investigate the use of luminous ceilings. And be sure the diffusing component is PLEXIGLAS. This acrylic plastic transmits light efficiently and diffuses it completely.

It is light in weight, strong and durable, can be handled quickly and safely

Luminous ceilings with diffusers of Plexiclas provide comfortable, efficient lighting-pleasant, inviting, easy to work under. Employees like the uniform illumination, the lack of glare or shadows. Lighting engineers

CHEMICALS



FOR INDUSTRY

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

natives in principal foreign countries

PLEXICLAS is a trademark, Rog. U. S. Pat. Off. and other principal countries in the Western Hemisphere.

Canadian Distributor: Crystal Glass & Plastics, Ltd., 130 Queen's Quay as Jarvis Street, Toronto, Oniario, Canada.

during maintenance operations.

Our booklet, "PLEXIGLAS for Luminous Ceilings", tells about this new method of lighting in detail. We will be glad to send it promptly to the person in your organization who handles lighting.

". . . to this high-geared existence, Bertch brings remarkable self control . . ."

ADMAN starts on p. 92

are entries of meetings with Heberling, or Bird, or Mansfield-to get copy approvals and go-aheads for the next stage of production. Each advertising unit-the newspaper teasers, the magazine announcements, the newspaper announcements—has to go through a series of processing steps. The layouts, art, and copy have to be approved first, then the rough pages, then the final proof pages. At each stage, Plymouth and Ayer both will be making corrections, fussing with color, calling for changes in the layout, type size, and the copy. Bertch is at the end of the line on all of this.

A trip to Philadelphia takes up a day while Bertch meets with Ayer's Creative Production Board, an over-all review group, which periodically analyzes the quality of work done for each client. A weekend goes into writing and working over a script that Plymouth executives will use to introduce the new car at dealer meetings. Add another two days to this for rehearsals and changes and another five while Bertch swings through the East to sit in on the actual meetings in New York and Boston.

• Field Trips-Interviews with dealers in the field-quite apart from the formal meetings-eat up a part of three days. (Ayer makes a regular practice of spot-checking with a number of the 10,500 Chrysler, De Soto, and Dodge dealers who also sell Plymouths-on the theory that it can turn up information about their problems that Plymouth itself wouldn't get.)

Weeks of work and talk go into the drafting of Plymouth's new dealer cooperative advertising plan. This is the first, and an immensely complicated, excursion by Plymouth into combined dealer-company spending for advertising. It is likely to add close to \$8-million out of factory and dealer money to the advertising investment next year.

And there is still the business of advertising the 1953 model-an operation that is simply a carbon copy of what Bertch is up to his ears in for the new campaign.

To this high-geared existence of words and pictures that sell, Bertch brings a remarkable amount of selfcontrol. He shows signs of pressure only when an edge of irritation creeps into his voice.

He doesn't explode, hardly ever swears. His dealings with Plymouth are marked by tact and patience and an understanding of mutual problems. Though he can fight for a point, his

forte is probably that of a roundtable moderator-bringing out everybody's ideas and helping to get a general agreement. Plymouth executives call him "Wid" and he calls them by their first

Bertch maintains that he may have fallen into advertising by accident, but that it's been his field by choice ever since. Born in Portland, Maine, in 1900, he grew up in Grand Rapids, Mich., and graduated from Dartmouth in 1923 with the idea of writing a newspaper column for the Grand Rapids Herald. (He had edited Dartmouth's humor magazine, and for a time its literary monthly, besides writing some music for one of the college shows.) He found an editor, however, who was convinced he could do without him.

On the rebound. Bertch decided to try his hand at advertising-mainly because a small Grand Rapids agency had a job open and offered it to him. He stayed until 1929—"doing everything," he says, "as you do in a small agency" -when he moved to Detroit to join the now-defunct Advertisers, Inc., which at that time had all the Chrysler accounts. For four years he wrote copy for Dodge and Plymouth.

In 1933, Chrysler decided to split up its various division accounts among different agencies. Lee Anderson, who had headed Advertisers, Inc., dissolved it, snared the Chrysler Corp. account, set up a new agency, and brought Bertch along as account executive and a vicepresident. Bertch later supervised the creative department. He stayed there until Pearl Harbor, when Anderson retired and closed up shop.

In 1942 he went to Washington to help organize the salvage division of the War Production Board, one of whose jobs was to convince homeowners that their iron picket fences were more important to the war effort than they were to their front vards. Bertch became deputy director of the division before he left, in 1943, to join what is now Geyer Advertising, Inc. He was a group supervisor and vice-president when he quit Gever in 1947 to go to work for Aver on Plymouth.

Since 1949, when he left the warm embrace of bachelordom to marry, Bertch has lived in what he describes as "a small house on a big lot" in upperbracket Grosse Pointe. He and his wife entertain and go out a good deal, much of it with friends from Chrysler Corp.

In his quiet moments, Bertch gardens, reads, or scans the ads in the 30 or so magazines that regularly choke his mailbox. He still plays the piano, has mastered boogie-woogie, and-quite apart from all else-exercises a passion for eagles (his house is infested with them-carved ship's eagle, gilt antique eagles, eagle wallpaper in the hallway). His two cars? Naturally, Plymouths.



gives a new concept of how fine a portable tape recorder can be!

Get ready for an exciting new experience. For you'll discard all your previous ideas about portable tape recorders when you see and hear the new Golden Tone Ekotape.

This handsome, popular-priced beauty is new from the ground up . . . new in modern design and styling, new in perfected engineering detail, new in its unparalleled simplicity of operation-new in the mellow richness of its studio-quality Golden Tone . . . Let your local dealer demonstrate it, without

obligation. If he isn't listed in your classified telephone directory - write us.

and what a gift for Christmas!





Where Quality is a Responsibility and Fair Dealing on Obligation WEBSTER ELECTRIC COMPANY, RACINE, WISCONSIN - EST. 1909



HEMCO-MOTIVE

WORLD'S SMALLEST LOCOMOTIVE

To SPOT and SWITCH RAILROAD CARS

Weighs 11/4 tons — Can move 360 times own weight! Freight car weight transferred by hydraulic lift to HEMCO-MOTIVE! Maximum drawbar pull of 7,400 lbs. Power to spare! Easily handles cars around curves — over switches! Moves easily overland on big pneumatic tires! LOW PRICE—LOW MAINTENANCE—LONG LIFE

HE MCO-MOTIVE
HE MCO-MOTIVE
YOUR
YOUR
TO SOLVE MANY OF YOUR
TO SOLVE MANY OF YOUR
MATERIALS Economically
MATERIALS Economically
PROBLEMS Brochure on Request

HEMCO

MFG., INC.





they're self-adhesive SAVE YOU TIME! SAVE YOU MONEY!

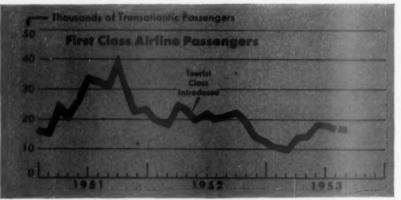
We can show you where to use these labels in your business! Mail the coupon for samples and more information.

AVERY ADHESIVE LABEL CORP., DIV. 120

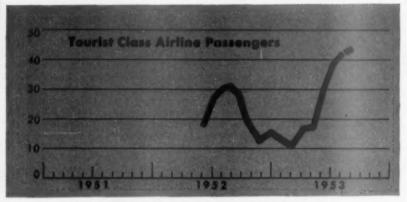
120 Liberty St., New York 6 • 6 Chicago 5 • 1616 So. California Offices in Other	Ave., Monrovia, Cal.
Please send case histories and free samples	Avery man call
Name	
Title	
Company	
Address	

INDUSTRIES

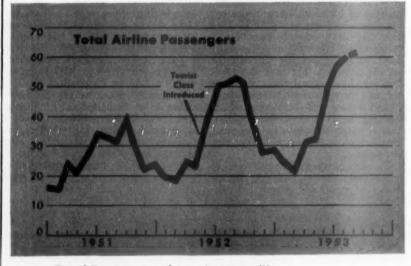
A Boom Puts Airlines in a



First Class has dropped steadily since tourist fares began . . .



... But Tourist Class has proved so popular that ...



... Total Passengers have risen steadily

Squeeze

Lines find that carrying more passengers at tourist rates has left them worse off than before.

More than 50-million passengers will travel on the world's scheduled airlines -national and international-this year. That's an increase of better than 5-million over last year's total, and of better than 10-million over 1951. The average trip covers a longer distance this year than ever before. Yet the airlines, as a group, are actually making less money this year than they did last year or in 1951.

Why that has happened-and what can be done about it-were major topics in Montreal last week at the ninth annual general meeting of the International Air Transport Assn. "We are operating perilously close to the eco-nomic margin," Sir William Hildred, Director General of IATA, told the chief executives of IATA's 70 member airlines at the opening session. "In the event of an economic decline the airlines would be one of the first to suffer."

• Fares the Key-The principal reason for the apparent contradiction-more passengers traveling farther, but smaller profits-lies in the fare structure. It is not quite a year and a half since tourist-class fares were first introduced on the international airways-for the North Atlantic run on May 1, 1952. They have already been extended to intra-Europe on flights and to the Middle East, and they will reach around the world by next April. While these lower fares are unquestionably responsible for the bulk of the increased traffic, they are also certainly responsible for the lesser economic returns (chart).

But eliminating tourist fares would certainly not be the answer to the economic squeeze. "The trend toward cheaper air transport is irreversible," says Hildred. The air ines must continue their efforts to sell their product -transportation-more cheaply, he believes, in order to make air transport an everyday commonplace for the great mass of the world's population instead of merely a luxury for the wealthy.

The great majority of the world's airlines today agrees with him. But the airlines must solve a vast number of problems before they can achieve eco-

nomic self-sufficiency.

Science tackles the problem of too many hands

... How New Ideas and New Methods Speed Record-Handling for Business

An old Business problem is getting out of hand because it takes too many hands. It is the recordhandling problem. In an age of mechanization and electronics, manual data-processing is costing Business untold sums in labor and lost time.

For example: A medium-sized bank often employs more than 100 persons to process more than 100,000 items daily. A medium-sized insurance company may have 50% of its employees handling data. A change in beneficiary may cause 40 separate handlings of a policy. The data problem is even more complex for many industrial firms. Invoicing, cross-referencing, inventory, purchasing, cost and sales control and other functions require huge staffs. The bigger the business, the bigger the problem. Too much work is manual; too little is electronic or automatic.

Science met the data problem head-on in recent years because scientific and engineering advances require faster, more accurate data-handling-and because there weren't enough trained hands to process the data manually.

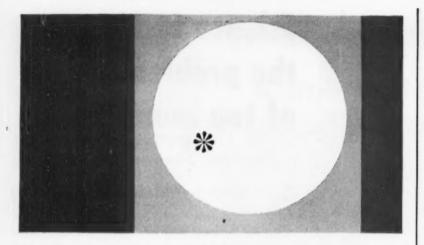
Telecomputing Corporation pioneered in helping solve the data problem for Science. It helped adapt high-speed accounting machines to data-handling. When necessary, it designed and manufactured new instruments. It invented new systems of electronic communication. Above all, it contributed New Ideas and New Methods to data-processing.

Now Telecomputing is applying New Ideas and New Methods to record-handling in Business-to help solve the costly problem of too many hands.

Turn hours into minutes with Telecomputing,

TELECOMPUTING CORPORATION

• More for Less-One major danger lies BURBANK, CALIFORNIA • WASHINGTON, D. C.



ultra-filtration

*removes the dust you can't see to keep precision machinery humming

Even atmospheric air contains dust that interferes with precision manufacturing and assembly processes or products requiring utmost purity. The newest and least costly method of providing super clean air for these operations is ulta filtration.

Actual tests of Dustube Collectors employing the ultra filtration principle have shown greater collection efficiencies against fine atmospheric dust than heretofore obtained by other types of equipment in the same application. Not only do Dustube Collectors employing ultra filtration cost less to install, but less to operate and maintain as well, because of less frequent cleaning, faster cleaning and the elimination of periodic replacement of various segments of the mechanism.

Ultra filtration removes all the contaminants which might impair machinery or the product. A few of its profitable applications are in aircraft engine factories, electrical control rooms, motor rooms, optical glass and instrument manufacture, bearing assembly rooms and in such chemical processes as film manufacture or fermentation.



For complete details send today for Catalog 72-B.

American
WHEELABRATOR & EQUIPMENT CORP.
461 S. Byrkit St., Mishawaka Ind.



in a tendency, already apparent, for airlines to relax the restrictions on the amenities that differentiate tourist service from first-class levels, for instance. Some have relaxed the highdensity seating pattern that has been the hallmark of tourist travel since its inception-particularly in smaller planes, such as Convair-liners, whose size simply doesn't permit five-abreast seating. Some lines have been increasing food service on tourist flights; others have started selling liquor. Today a small French airline, Union Aeromaritime de Transport, is even using Comet jet transports with high-density seating to carry passengers.

The danger here is twofold: (1) The more frills the airlines add to their tourist service, the more expensive the services will be to maintain; and (2) if travelers can get practically all the frills for tourist farcs, pretty soon there won't be any market at first-class rates.

The second specter is already a reality on some intra-European routes. On many of these, traffic density isn't great enough to support two classes of service. Since the majority of the demand here, as on the transatlantic run, has been for the lower-priced service, the airlines have dropped the first-class service altogether.

· Reactions-The threat to the survival of first-class air transport got reactions at Montreal that ranged all the way from complete disbelief to complete acceptance. "Of course tourist fares will squeeze out first-class fares in the long run," said one airline president. The vice-president of a European carrier disagreed with him: "On the shorter runs, such as those within Europe, he said, "tourist class will become much more austere than it is now. And at the same time first class will become more plush-British European Airway's new Silver Wing service between London and Paris is already an example of that."

Another European airline executive suggested a middle-of-the-road solution: "combination" planes, with mostly high-density, tourist-type accommodations, but with a set-off, plushy first-class section for those who want to pay the difference.

• Costs—Other dangers to the airlines' financial stability lie both in costs and in revenues. Hildred pointed out that the airlines are paying from 30% to 100% more for practically everything they buy than they did at the end of the war—while the cost of air transportation has dropped by as much as 50%. And these cost items include a good many things that people outside the industry would never think of.

One such item is airport charges. All airports charge airlines for the use of landing facilities and terminal buildings and for hangar and servicing facilities. There is a strong trend today toward



Me? Ride to work on wire rope?

That's right. In the course of a year this young lady may travel as much as 150 miles with the aid of wire rope that safely and swiftly whisks her elevator aloft and then just as safely returns it to ground level. It's quite likely that she gets to her job with an

assist from Wickwire Rope. Here again—as in so many other fields where wire rope is used—men who manage and maintain the nation's tall buildings have learned to place unbounded faith in the safety and reliability they get from Wickwire Rope.

A YELLOW TRIANGLE ON THE REEL IDENTIFIES WICKWIRE ROPE

THE COLORADO FUEL AND IRON CORPORATION—Abilene (Tex.) • Denver Neusten • Odesse (Tex.) • Phoenix • Salt Lake City • Tulsa

PACIFIC COAST DIVISION—Los Angeles • Oakland

Portland • San Francisco • Seattle • Spekane

WICKWIRE SPENCER STEEL DIVISION—Boston • Buffole • Chattanoogu

Chicago • Detroit • Emlenten (Pa.) • New Orleans • New York • Philadelphia

WICKWIRE ROPE

[F] PRODUCT OF STICKWIRE SPEECES STREET BATTERS
THE COLORADO PORT AND HOSE CORPORATION



TODAY'S GREATEST CRANE VALUE... Series "D" Load Lifter Cranes

ADVANTAGES of the most expensive cranes are engineered into the new Series "D" 'Load Lifter' Overhead Electric Traveling Cranes built by Shaw-Box. They are priced far lower than other makes designed for average industrial service, because Shaw-Box employs standardization and mass production techniques to the fullest extent.

SERIES "D" 'LOAD LIFTER' CRANES are ruggedly built in three basic types and three styles of trolleys. Capacities range from 1 to 20 tons. Three-girder bridge construction assures freedom from whipping and skewing. All gearing operates in oil in sealed housings. For maximum efficiency, every bearing is a ball or roller bearing. The bridge and trolley wheels are carried on axles that rotate on anti-friction bearings. On floor-controlled cranes a pendant-type push-button assembly is provided to actuate variable speed magnetic controllers. Cage-controlled cranes are operated by master switches. You can be certain of accurate, easy control, complete safety, low maintenance, economical operation and dependable service.

SELECTION IS EASY because every Series "D" 'Load Lifter' Crane is cataloged by size and type. Write for Catalog 221 and choose the crane that meets your requirements exactly.



MANNING, MAXWELL & MOORE, INC. Muskegon, Michigan Builders of "Shaw-Box" and 'Load Lifter' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of 'Ashcroft' Gauges, 'Hancock' Valves, 'Consolidated' Safety and Relief Valves, 'American' Industrial Instruments, and Aircraft Products. raising such charges and fees. Each increase by itself is small. But they are all arbitrary and completely uncontrolled by either the airlines or, in most cases, by the national governments.

Another item is found in national restrictions on currency transfers; in some cases an airline is required to sell its tickets at one exchange rate and then, when it wants to get its money home, to convert it at a different, less favorable rate.

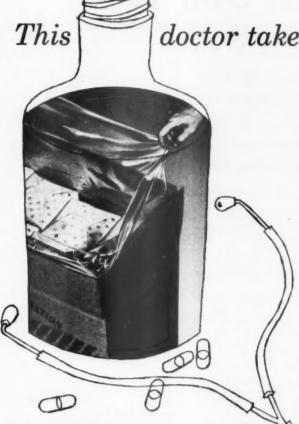
-Still another is the limit on personal liability claims by passengers. This limit was set by international agreement back in 1934 at 125,000 "Poincare francs" per person (which means an airline's liability to any one passenger is about \$8,300 in U.S. money). Today the governments that signed this "Warsaw Convention" are in the process of revising it; it appears likely that they will raise the liability limit to 200,000 Poincare francs—a jump of 60%.

• Rate Drop-Airline revenues broadly into three classes: passengers, freight and express, and mail. The first two the airlines themselves control, at The third, however, least in part. is out of their hands altogether; they must accept what the governments want to give them for carrying the mail. Basically, that amount is set by the intergovernmental Universal Postal Union. The rates have been three gold francs per tonne-kilometer (or about \$1.45 per ton-mile) for intra-European mail, six gold francs (about \$2.90) for transatlantic and the rest of the world.

Now the UPU has just revised the latter figure downward-to four gold

· Government's Gate-The result of this squeeze between rising costs and lower rates is that, despite the tremendous rise in air travel, international airlines are not better off financially than they were a couple of years ago. Most of them are just barely making a profitand hence are totally unable to build up any reserves against the future. Since most of the airlines depend to a greater or less extent on government subsidy, and since many of the costs as well as the postal rates are within government control, Hildred lays this "subsistence economy" chiefly at the doors of the various governments. "Some airlines," he says, "make a profit but are not certain for years whether they will be allowed to keep it; others . . . may be allowed to retain some share permanently only to be castigated as acting against the public interest; those who . . . cannot make ends meet are described as reckless wasters of government money.'

"I therefore make a strong plea for the elimination of this fantastic contradiction," says Hildred. "A balanced airline economy is in the interest of everybody: the traveling public, the airlines, and the governments themselves."



doctor takes his own medicine!

For years VISKING's job has been to write the best possible prescriptions that would solve packaging problems for others.

It wasn't surprising, then, that we should write a prescription for ourselves when we faced a problem in moisture control.

VISKING'S NoJax Casings (for SKINLESS franks) are at their best for processing when they leave the plant. They are packaged in an atmosphere containing just the right amount of water vapor.

But the conventional shipping carton did not keep them in that state. Sometimes they got too dry. Sometimes they absorbed too much moisture.

Exhaustive tests in the VISKING laboratories showed that a carton liner of VISQUEEN film would provide complete moisture control. Now every carton of NoJax contains a VISQUEEN liner. Casings are always in perfect shape for the packer's stuffing table.

If you have a tough packaging problem involving moisture, corrosives or what have you, consult a **VISQUEEN** converter. Our technological skills are at his call. To get better packaging, use the coupon.

VISQUEEN.

Important! VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. The VISKING CORPORATION pioneered pure polyethylene film. Only VISQUEEN has the benefit of our technical skills and research. VISQUEEN is produced by process of U. S. Patents No. 2461975 and 2632206.

Vis Queen film...

a product of the Visking corporation
World's largest producers of polyethylene sheeting and tubing
Plastics Division, Terre Haute, Indiana

In Canada: Visking Limited, Lindsay, Ontario

THE VISKING CORPORATION, BOX Y10-1410
Plastics Division, Terre Haute, Indiana

Send me names of VISQUEEN converters serving my area.

Name

Company

Address____

City Zone State

Baseball Shifts Aren't Over Yet

- The Browns have been shifted from St. Louis to Baltimore for a fresh start under a new name.
- Other major league clubs—notably the Philadelphia Athletics—are ripe for a change that might stimulate the turnstiles. But . . .
- The big leagues face dollars-and-cents problems in further transfers, to the West Coast or any of the other clamoring areas.

On the last Sunday of the American League season, 3,174 disgruntled fans sat in Busch Stadium, St. Louis, to watch the last-place St. Louis Browns lose a 12-inning decision to the third-place Chicago White Sox. It was a tight game, 2-1, and a creditable showing by the local team. But the fans had come to bury the Browns, not to praise them.

In the last stages of the game one group of dichards hoisted and hanged an effigy of Bill Veeck, majority owner of the Browns. When the game went into extra innings, the plate umpire called for a supply of new balls—the ballboy had to admit the team didn't own a new ball, and the umpire charitably looked over the rejected balls and put the least scuffed ones back into play.

The Browns lost their 100th game of the season that day. They finished last in batting, last in fielding, and last in the hearts of St. Louisans. In 70-odd home dates, they drew only 310,914 paying customers, a 40% drop from last year.

• Expedient—Two days later, the American League owners approved a shift of the Browns from St. Louis to Baltimore. They made the change not without a lot of backing and filling and they made it without sympathy for unconventional Bill Veeck. They agreed only that the Browns was dead in St. Louis.

The Sporting News, sports weekly published in St. Louis, quotes Veeck as estimating his operating losses at \$1-million in two and a half years since he took the club over. The paper quotes Veeck's estimate of the team's breakeven point: 600,000 annual attendance if radio and TV rights are counted, 750,000 attendance without counting air rights. The Browns drew 293,790 in 1951, Veeck's first partial season, and 518,789 last year, along with 310,914 this season.

The Browns' shift to Baltimore started a sequence of bumping down the line. Baltimore's International League Orioles had to move out—the International League is deciding in the next few days whether to move the franchise elsewhere or to go with a sixteam league, climinating the old Baltimore club and also Springfield, Mass., a weak sixter.

• The Deal—As the attendance figures for three years show, the Browns stirred up some support under the Veeck regime. Veeck nearly doubled attendance last year, with the same promotion stunts and pregame shows that he used so successfully while leading the Cleveland Indians. The deal turned sour for him only when Anheuser-Busch, Inc., bought the St. Louis Cardinals (BW—Feb.28'53,p32).

The idea of competing with brewery money for local fan loyalty was too much challenge for Veeck, and he made a hasty attempt to move the Browns first to Milwaukee—and that set the National League to the countermove of the Boston Braves to Milwaukee—and alternatively to Baltimore. All he succeeded in doing was alienating the St. Louis customers.

This made it doubly imperative for the American League to let Veeck sell out this year. The Baltimore deal calls for the new owners to pay \$2,475,000 to Veeck for his 79% stock interest in the Browns, to pay \$350,000 for the old International League franchise, and to pay an unspecified indemnity to the International League

International League.

Veeck paid \$1,750,000 for the club and the ballpark in the suramer of 1951. This season he sold the stadium, known then as Sportsman's Park, to Anheuser-Busch for \$800,000, with another \$300,000 due whenever the Browns go away and stop competing with the National League Cardinals. So, on capital account, Veeck hasn't done badly.

• What Next?—The St. Louis-Baltimore shift is the first change in the American League in 50 years. The 1903 change dropped Baltimore from the league and brought the New York Yankees in.

Baseball writers are convinced further shifts are inevitable. Simple economics will enforce changes, however much the owners drag their feet.

Attendance figures are in now for the season that closed last month. Altogether, the major leagues lost only 1.8% from last year. But that would have been far worse had not the new Milwaukee Braves set a phenomenal pace with a 550% gain over 1952, when the team drew only 281,278 in Boston.

With the help of Milwaukee's 1,826,-397 this season, the National League gained nearly 17% in attendance. The American League dropped 16%. One American League team slipped even more than the Browns: The Philadelphia Athletics lost 42% of last year's attendance. So the As are a prime candidate for the Milwaukee-type treatment.

• Golden Carrot—Baltimore, of course, hopes to do for the Browns what Milwaukee did for the Braves. That's a fast pace to follow. The Braves had 37 crowds of more than 30,000—out of 71 home dates—in setting the all-time National League attendance record (BW—Oct.3'53,p122). Their smallest crowd was for an early-season afternoon weekday game with the Cincinnati Redlegs—8,720, a crowd that would have overioved Bill Veeck.

Baltimore is off to a good start, though. In the first four days, the new management received mail requests for 20,000 opening-day tickets, assuring a 52,000 full house for at least that one game. The mail also brought 1,800 orders for season tickets.

However, Baltimore sources calculate the new Orioles' breakeven point at 900,000 to 1-million attendance. The old International League Orioles broke their league's attendance record in 1946 with 722,036, including exhibition games and playoffs. But this season they drew only 240,126.

The Baltimore stadium, owned by the city, is being partially doubledecked to attain 52,000 capacity, and parking lots are being enlarged for 1,200 more cars. Prices of seats are being upgraded from 60¢-\$1.40 to 75¢-\$3.

The test for Baltimore will be the quality of the team. In Milwaukee, a team that had finished seventh in Boston was suddenly a pennant contender, winding up in second. The Browns are traditional cellar-dwellers; they must improve if they are to draw.

 Musical Chairs—It's pretty certain that the American League, perhaps the National League, too, is going to have to renew its game of Going to Jerusalem—though that's one of the few cities not mentioned as likely for a transfer of franchise. A lot of cities clamored for the Browns when their plight became clear. Among these were Los Angeles, Kansas City, the Twin Cities, Houston, the Texas twin cities of Dallas and Fort Worth, Montreal, and Toronto.

Civic ambitions to go major-league are bolstered by the obvious trouble of such teams as the Philadelphia Athletics. And by the stated policies of the two leagues to go west, go north, go south—anywhere to escape the economic squeeze they're getting in the present cities.

• Athletics Whistle—In Philadelphia, though, Earl and Roy Mack, majority owners, are whistling past the grave-yard. Only in 1952 did attendance reach the reputed breakeven point of 500,000; that year it was 626,984. Only the rental of Connie Mack Stadium for football games and prize fights has kept the club's head above water, insiders say. Yet the Macks insist the team will stay in Philadelphia, no matter what.

Cynics point out that Veeck said the same thing about the Browns as recently as the summer of 1951. Some people feel that the Macks' wishes could easily be overridden if the ballpark mortgage holders, Connecticut Life Insurance Co., cracked down.

The As need more parking space if they are to draw customers—and also a better team. They have a few stars but, over-all, as one writer said, "they couldn't draw in a church league."

• Go West, Maybe—The really hot interest is in possible expansion of the major leagues to the West Coast. Only a few months ago, the secret came out that the National League in 1947 had amended its constitution to allow 10 teams instead of eight—obviously this was a nod toward Los Angeles and San Francisco. In conjunction with the Browns shift, the American League hastily put through a 10-team provision, too.

Baltimore and Veeck were stymicd for two days, in fact, by some owners' insistence that Los Angeles get preference over the Maryland city. Del Webb of the Yankees has often said that baseball must look west. Only the failure of Los Angeles backers to produce cold cash gave Baltimore a second chance at the Browns.

• Coast League—The Pacific Coast League—not classified as either a minor or a major league—is getting shakier by the year. This season total attendance sagged to 1,760,898, from 4-million in 1947. Only Los Angeles and possibly Hollywood, the pennant winner, broke even. And even Los Angeles slid from 627,000 in 1948 to 363,000 this year.

Two weeks ago, the Coast League was forced to buy the San Francisco Seals franchise back from owner Paul I.



Complex electronic and servomechanism equipment, designed and produced by Bell scientists, engineers and technicians, are incorporated in Bell products as well as those of other major aircraft and guided missile manufacturers. The most advanced missile guidance and remote control systems are being supplied military services and industrial users. Bell's diversified program also includes development and production of various radar, proportional control equipment, telemetering systems, automatic landing devices and different types of auto-pilots.

All this is in addition to research and production of guided missile airframes, rocket motors, special research aircraft and helicopters (both military and commercial).

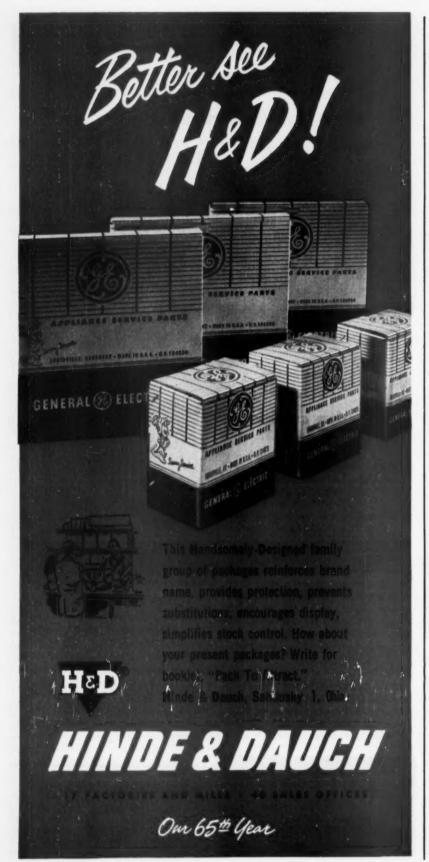
Thorough research, advanced engineering and sound production techniques which distinguish Bell products will provide major technical contributions to tomorrow's science, industry and commerce.



BELL AIRCRAFT CORPORATION

uffalo, N. Y. Fort Worth, Texas

Pacemaker of Aviation Progress



". . . the visitors' share wasn't enough to pay hotel and train costs . . ."

BASEBALL starts on p. 110

Fagan, who lost \$150,000 this season. And trouble looms as P. K. Wrigley, owner of the Los Angeles Angels, served notice that he won't waive his territorial rights to allow the Hollywood club to operate after 1957.

Coast League teams operate on a breakeven point of about 350,000 attendance. To raise to a major league breakeven of, say, 900,000 would be a terrific job, but Los Angeles and San Francisco civic leaders are eager to tackle it.

• Criteria—When the major leagues go shopping for new sites, they must consider:

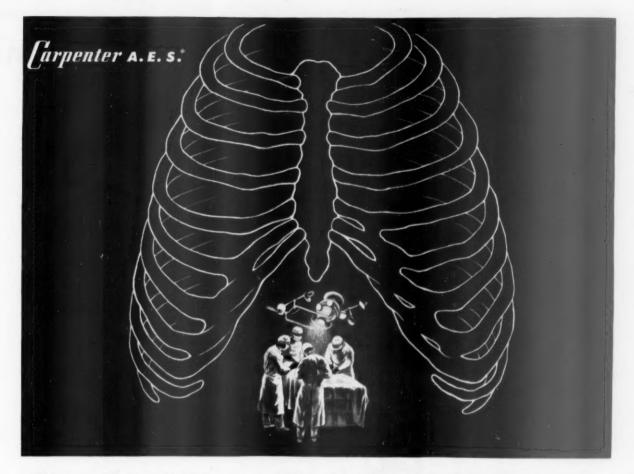
Travel cost. For schedule purposes, leagues must be split between East-West divisions, so teams must stay relatively balanced. If any West Coast city is selected, another ought to be-both because it wouldn't pay to take cross-country trips to only one city and because intercity rivalry of the Dodger-Giant type is essential.

Stadium capacity. A park should seat at least 40,000-more would be better to get added revenue from football games. West Coast stadiums run downward from 20,000. Kansas City's Blues Stadium seats 17,500 with plans to expand to 34,999. Stadiums require municipal financing these days; the last privately built park, Yankee Stadium, cost \$2.3-million in the '20s, might cost \$9-million now.

Players. The easy way to get into the new market areas, of course, is to transfer a franchise, as has been done twice lately. That way, you take the players along, infuse some fresh money for better players, and have a going team. The other way is to start from scratch, as would be necessary if either or both leagues expanded to 10 teams.

Baseball scouts, who have the duty of digging up new talent, say there isn't enough major league talent for the present 16 teams, let alone two or four new ones. And without major-league talent, no team can draw.

Drawing power. A team in a new city must be able to draw crowds even if it's not a pennant contender. Skeptics still wonder how a seventh-place team would draw in Milwaukee, year after year. And this factor affects the whole league: Visiting teams get 29¢ for each ticket sold by the home team. Late this season, the Cincinnait Redlegs and New York Giants drew so few fans to the New York park that the visitors' share wasn't enough to pay their hotel and train costs.



"Stretching" Human Ribs for Better Surgery



Another example of how Carpenter *Application Engineering Service is working for industry

Look down a long hospital corridor late at night. A soft light gleams over the operating room. Inside, skilled hands, working with modern instruments, are prolonging another life. And one of the instruments often in use is a rib spreader . . . employed to separate ribs in the human

body during a chest operation. A vital part of the spreader is the rack that supports the two jaws. It must have strength to remain rigid when the patient breathes heavily under anaesthesia. Its finish must be bright, smooth, sanitary. Above all, it must be available to meet the needs of many hospitals.

The manufacturer first tried an ordinary Type 416 Stainless Steel to make the rack. But because of difficulties in machining, he couldn't produce the spreader fast enough to fill critical orders. Here is how Carpenter Application Engineering Service paid off. Carpenter Stainless No. 5, Type 416 was recommended . . . a free-machining Stainless invented by Carpenter some years ago. With No. 5 the manufacturer upped production 25% and obtained more uniform hardening qualities in heat treatment,

Here is just one more case wherein industry has found a way to make better products and hold down costs...with the help of Carpenter Application Engineering Service. A.E.S. is yours to profit by when you do business with Carpenter. THE CARPENTER STEEL CO., 140 W. Bern St., Reading, Pa.





Pioneering in Improved Tool, Alloy and Stainless Steels Through Continuing Research

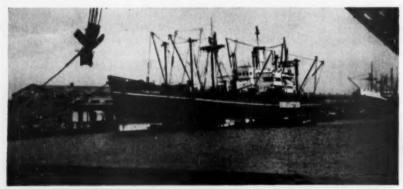
SANK The world watched the Atlantic ordeal of Isbrandtsen's Flying Enterprise, when skipper Carlsen (circle) stayed with sinking ship till the last hour.



RAN BLOCKADE Isbrandtsen ships try to go where they like. Here's the Sir John Franklin after it ran Chinese Nationalist blockade.



DETAINED The Flying Trader was one of three Isbrandtsen ships that were held by Chinese Nationalists, for breaking Hong Kong blockade.



BOMBED Nationalist planes bombed and strafed the Flying Clipper off Tsingtse, as part of Isbiandtsen's private war with Chiang Kai-shek.

COMPANIES

Isbrandtsen:

Sound and fury in the U.S. maritime industry can almost invariably be attributed to one company-Isbrandtsen Co., Inc. This week was no exception. In lower Manhattan, a Federal Maritime Board examiner was hearing testimony probing the legality of the contract rate system proposed by ship owners who are members of the Japan, Atlantic & Gulf Freight Conference. As usual, the No. 1 opponent of the system is Isbrandtsen; this time it is getting an assist from Justice Dept. attorneys who see antitrust violations in the proposed system and from Agriculture Dept. people who are required to watch shipping rates, keeping them as low as possible.

The Japan-homeward conference, as it is called in the trade, wants to install a system wherein shippers who sign contracts to use members' ships exclusively will get a 9.5% lower rate than those who don't. The aim is to establish some stability in the trade, which has been suffering from an allout rate war since last spring. The effect, if the plan is put into operation, will be to cut sharply into the amount of cargo carried by Isbrandtsen, which has a long record of opposition to the entire conference idea of setting rates in concert.

A couple of years ago, through Isbrandtsen efforts, the North Atlantic conference was enjoined by a federal court order from engaging in a contract-noncontract rate system. And the Far East conference, which covers outward-bound shipping from the U.S. to the Orient, is similarly tied up, again through Isbrandtsen opposition combined with the Justice Dept.

• Toughness—This kind of scrapping is almost a symbol of the company. As a matter of fact, its emblem is a couple of old, chin-whiskered salts in oilskins leaning on a ship's railing and looking tough.

Other indications of the Isbrandtsen frame of mind can be drawn from the celebrated Flying Enterprise episode where Capt. Henrik Kurt Carlsen clung to the deck of the foundering vessel for days waiting for a tow (BW-Jan.12'52, p20). Or the times in 1949 and 1950 when Isbrandtsen ships got shelled by Chinese Nationalist gunboats for trying to sail out of the Yangtse, below Shanghai. Or when Isbrandtsen ships were seized by the Dutch in 1947 out of civil-war torn Indonesia and by the Egyptians in the Suez Canal in 1948 on charges of carrying war material to the Israelis.

This pugnacity, coupled with the idea that you can trade anywhere un-

Turmoil's Child



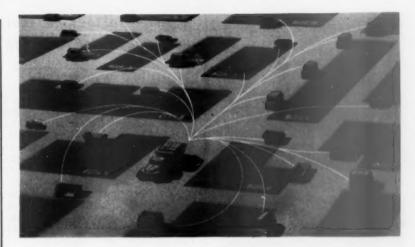
THE FOUNDER, Hans J. Isbrandtsen.

less some law specifically forbids it, was the life-long attitude of the company's founder, the late Hans Jeppesen Isbrandtsen. It formed the basis for his entire operation and ultimately for his very considerable fortune.

• Sea Heritage—The son of a ship owner and the grandson on both sides of ship masters who died at sea, Isbrandtsen was born in the little seaport of Dragor in Denmark, where he was also buried. From the beginning, the value of hard work—for money—was drummed into him. When he came to this country during World War I to set up a ship agency for a Danish line, he left chairs out of the office decor. That way, nobody stayed longer than necessary. This Calvinist tradition showed even in photographs. For him, a smile was a slight slackening of the tight-pursed lips.

From the late 1920s until World War II, he headed the American end of Isbrandtsen-Moller Co., a Danish steamship firm that he owned with a cousin. At one time they controlled 86 ships, making them one of the biggest operators in the world. The company never joined any rate conference, and even in those days it had a reputation around the trade for toughness. The firm broke up after the Germans occupied Denmark, and in 1941, Isbrandtsen set up the present company. Moller Steamship Co. now is a conference operator, and the story is that the Isbrandtsens don't talk to the Mollers anymore.

• Coffee Deal—At about that time, the new company got into a sideline that no company without Isbrandtsen's go-it-absolutely-alone attitude would have bothered with. One of the lass ships out of Java before the Japanese conquered the island was one of Isbrandtsen's vessels. Confusion had



What you can do about your high cost of bulk Materials Handling

The picture above tells the whole story of the Dempster-Dumpster System of Bulk Materials Handling. Never before have you been able to cut bulk materials handling costs so drastically! One truckm o u n t e d Dempster-Dumpster handles the entire group of Demp-

ster-Dumpster Detachable Containers. It's like having scores of truck bodies for a single truck.

Containers are spotted at convenient materials accumulation points. When loaded each is picked up, hauled and emptied (as shown at left)... or load set down intact. Entire operation is handled by only one man, the driver, by hydraulic controls in cab.

Each container is designed and built in the desired size up to 12 cu. yds. to suit the materials to be handled—be they solids, liquids or dust...hot or cold...bulky, light or heavy. You can handle, at tremendous savings, materials of many descriptions—trash and waste materials, raw materials, finished products, etc.—with only one truck and only one man, the driver. Write to us for complete facts. Manufactured exclusively by Dempster Brothers, Inc.

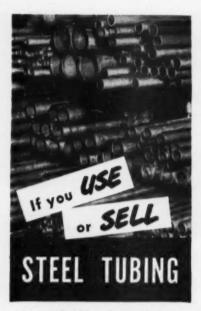








DEMPSTER BROTHERS, 4103 Dempster Bldg., Knoxville 17, Tenn.



in considerable volume, you may profitably make it yourself from coiled strip on a small, compact Yoder electric-weld tube mill. Daily production from 25,000 to 50,000 feet with only one operator and a helper. Amazingly simple and trouble-free, the new 4-in-1 Yoder welding transformer insures highest output of quality tubes at lowest cost per foot or mile.

Yoder Tube Mill Book tells complete and interesting story of the Yoder method and answers most pertinent questions about first cost and operating cost, minimum requirements for profitable operation, skill and training of operators, power consumption, weldable materials, tooling, etc. Send for it.

Latest Yoder development: Highly economical new process of making aluminum, brass and other non-ferrous tubing by cold forming and welding of coiled strip, Details on request.



"... a federal tax killed that golden goose for American concerns . . ."

ISBRANDTSEN starts on p. 114

taken over on the dock, and when the captain radioed home for instructions, he was told to buy up anything in sight. He sailed away with 5,000 bags of high-class coffee. Back home, nobody would buy it at Isbrandtsen's price, so he set up a small shop, ground, packaged, and marketed it himself. Now the company has a full-scale coffee processing plant. It probably doesn't make much money, one official ventured, but "the old man" showed them.

• Round-the-world—The backbone of Isbrandtsen's business is its regular round-the-world service. Every two weeks, a ship leaves Atlantic Coast ports, sails through the Mediterranean, the Suez Canal, Red Sea, Persian Gulf and on through the Orient, stopping at every major port and then proceeding via the West Coast through the Panama Canal and back home. In addition the company runs ships from Atlantic and Gulf ports to North Europe, Central and South America.

Its fleet consists of 15 war-surplus American flag freighters and a string of German, Danish, Norwegian, Greek, and other chartered ships, sometimes running up to 90 or more, depending on the demand. Besides all this, it is the general agent for the government-owned Venezuelan Line. Some of its chartered bottoms run on its scheduled routes, others run as tramps or contract carriers of bulk commodities.

Even that is only part of the story, maybe 55%-70% of it. Most of the rest of the company's \$25-million in annual gross revenue comes from its operations as a commodity shipper and trader. Isbrandtsen is foreign agent for products of American Oil Co. (Amoco), and it trades in steel, grain, rubber, cotton, machinery, and everything else that will sell, through its commodity division, often on ships of its rivals. Last spring the company charged its competitors with collusion to freeze it out of the Alexandria, Egypt, cotton market where it had been very big.

The Isbrandtsen Co. of Louisiana, Inc., an affiliate, owns a dozen or more producing gas wells in Louisiana and a big piece of a prosperous oil well in Wyoming, the rest of which is owned by Sinclair Oil Co. Briefly before the war, Isbrandsten took a flyer, a very profitable one, in whaling with his fellow townsman, General Motors' William Knudsen, but a federal tax killed that golden goose for American concerns.

• The Profits-Though Isbrandtsen is

considered to be the biggest and most prosperous of the independents, the company is small by comparison with other industries. Net after taxes in 1950 totaled \$834,782, and that was a fat year for shipping, a business that is traditionally lean in this country. In 1951 the net came to \$655,539 and assets totaled \$19.9-million against \$6.5-million in current liabilities plus some long-term mortgages on ships to the government.

Company profits, where others have tough going, are attributed to two factors. Isbrandtsen's shunning of conferences enables it to quote rates that fill ship holds by sailing time. At times, the company has quoted conference rates less 10%, to the dismay of com-petitors and the Maritime Board, which favors the contract-noncontract system. Industry sources claim that Isbrandtsen's round-the-world ships often shun low-rate raw materials in the East and sail into Japan with empty holds ready to bid for high-rate manufactured goods. This, it is said, has given the company a virtual monopoly on the Japan-homeward trade, even to the exclusion of Japanese conference members.

When shippers in an area clamor for space, Isbrandtsen is free to charge more than conference rates. The frantic Hong Kong-to-Shanghai traffic that followed Communist mainland conquests is cited as an example of this kind of operation. It was during these voyages that Isbrandtsen ships were fired on.

• Low Overhead—The other aspect to Isbrandtsen profits is its legendary ability to cut overhead. The company is said to have the lowest overhead perton-carried of any American operator. It is considered to be one of the toughest offices in lower Manhattan, and one of the lowest paid. "If you can work a year for Isbrandtsen," the saying goes, "you can work anywhere." All the company's maritime employees are covered by union contracts, but one labor official compared bargaining with "getting blood out of a stone." "But," he added, "if you stood up to the old man, he respected you."

Turnover is reportedly high. Office decor is stern, and until the old manhe was only 61-died last spring, no smoking was permitted by anyone in the offices. Even today, they have to hunt for an ashtray.

• Son Took Over—Since his death, there has been no change evident in company policy, and none is expected. His son Jakob (pronounced Yakob), young and American-born, took over as president. Jakob was brought into the business straight out of high school—he's only 30 now.

Backing up Isbrandtsen's son is an old hand, Matthew S. Crinkley, now executive vice-president. Crinkley, a

Minks



Mining Equipment

More and more shippers specify

AIR FREIGHT!

Whether you need stock for seasonal store sales or parts to keep a production line moving, Air Freight delivers the goods in time! And very often at lower cost than surface transportation! The speed, high payload and low operating cost of Douglas transports have enabled

airlines to offer substantial savings.

Ask your local airline how economies in items like crating, inventory, storage and interest may make air freight your best shipping medium.

Douglas Aircraft Company, Inc.

Douglas

First in Aviation



Photo courtesy Monarch Rubber Company

STOPS SHIPPING DAMAGE: **CUTS COSTS 46%** with Brainard Strapping Service

WHAT would you do if shipments of your products continually arrived broken and damaged? This manufacturer of industrial tires called in the nearest Brainard Strapping System salesman, Rudy Schulz of Wooster, Ohio, for his ideas.

After following this shipping problem right into the boxcar, Rudy came up with specific recommendations, followed by a demonstration on the job. The old method of wood blocking was dropped. Now the pallets of tires are loaded tightly together and steel strapped to walls

and to a special bulkhead designed around the pallets.

Results - damage in shipment and costly claims have been completely eliminated. A source of customer dissatisfaction has been removed. Yet this improved shipping method actually has cut costs 46% per boxcar

Brainard salesmen are factory trained to give you recommendations and demonstrations that can improve the efficiency of your materials handling and shipping operations. Put Brainard's experience to work for you now. Offices located throughout

New Portable Strapping Kit-the Brainard Utilikit is a completely self-contained strapping outfit. Easily carried from job to job. Ideal for the small volume user. Write for booklet.

the U.S.



Steel Division, Sharon Steel Corp., Dept P-10. Griswold Street, Warren, Ohio.

Write for complete information. Brainard

STEEL STRAPPING

former traffic man with a North Carolina tobacco exporter, met the old man in the early 1930s and was brought into the business. Briefly during the war, when they had a falling out, Crinkley worked for a Baptist organization in New York. He has been known to quote Scripture freely and is probably responsible for the invocations to Providence that occasionally turn up in Isbrandtsen's strident "messages in various newspapers, invariably signed with the one word "Isbrandtsen."

Others in the company include a stepson, Waldemar, who worked for a conference carrier for a while, and a son-in-law. Isbrandtsen's widow carries the title of assistant secretary. Nobody talks to the public about the de-

tails of internal affairs.

· Proclamations-About the only contact with the outside world has been through bought space in the press and a brochure on the company's difficulties told with overtones of rage. invective against Washington "bungling" and "international cartels" (Isbrandtsen term for conferences), the company pleads for free enterprise, and free trade.

Obviously aiming at the China trade, it asks, "Should we not follow the tra-ditional American policy of the Open Door, and free access to the outer world, take things as we find them, all the while making certain to retain unswervingly our American ideology here?"

Isbrandtsen schedules still carry Chinese ports-of-call, with a note that service has been discontinued. One of the old man's favorite remarks was, "I am a Presbyterian, yet I would soon find business slack if I were to deal only

with other Presbyterians."

It was this kind of thing that caused one official of a competitor to question the sincerity of some of the company's statements. Ever since Isbrandtsen offered to go along with the conferences back before the war, provided he could go on making special deals with a few very big customers said to include Ford Motor and Johns-Manville, some ship owners have even doubted that his opposition to conferences is simon pure.

Said one, "They talk the American Way, but they've got a Utopia as long as we try to run the conference without the teeth of a contract system. They can undercut us all over the map while we try to tie our own hands on rates.'

· Wrong Century?-Even this official concedes that the company, in dealing with its shippers at least, is "thoroughly reliable and responsible. They just have a completely different idea about how to do business. Somebody once said the only trouble was the old man was born 100 years too late. Maybe

For Otis: More Electronics

Elevator company marks 100 years in business by acquiring an electronics subsidiary. It means more geewhiz in both elevators and other fields.

Five years ago, Otis Elevator Co. celebrated its 50th anniversary; this fall,

its 100th anniversary.

Not many companies can make the years fly so fast, but there's no real anachronism in Otis' case. The company's history happens to have offered it two quick chances to make some hay out of the pioneer role of Otis in the

elevator industry:

Fifty-five years ago, a dozen companies were consolidated into the present Otis Elevator Co. The \$11-million merger-big money in 1898-included the direct descendants of the original Otis company. And a hundred years ago, Elisha Graves Otis, Yonkers (N. Y.) mechanic, opened his first shop with an order to build two freight ele-

· Innovation-The old joke has it that the elevator business is full of ups and downs. But Otis, after 100 years, is now branching out. It has acquired an electronics manufacturer as the nucleus for a new electronics division that's by no means restricted to the elevator field. The industry is looking for some revolutionary developments in century-old Otis.

Inventions, though, are nothing new to Otis. The business in fact, was founded on an invention. When Elisha Otis set up shop in 1853, his main asset was the first automatic device to keep an elevator from falling if the rope

or hoist failed.

• Small Beginning-At the end of 1853. Elisha Otis had booked \$900 in sales in three months, and he had an inventory of \$122.71, including a secondhand lathe and two oil cans. Today, Otis sales run nearly \$25-million a quarter, \$100-million a year in a \$300-milliona-vear industry.

Even Elisha Otis' safety gadget, a spring and ratchet combination, wasn't enough to win the public overnight to elevator-riding. In his first two years, Otis sold and installed 27 elevators, but all were for freight. It was 1857 before he sold the first passenger lift equipped with his spring-and-ratchet device.

This was the beginning of evolution for the fast, safe elevators that have made possible the growth of skyscrapers. For many years, elevators have carried more passengers daily than any other form of transportation.

· Looking Ahead-The spring and ratchet gave way to more sophisticated mechanical devices. And now, Otis Elevator is pushing aggressively ahead

into an age of gee-whiz electronics. Electronics are the latest thing in elevator operation. Otis has put its chips on what it calls Autotronic Elevatoring: automatic electronic control of operatorless elevators to conform with traffic needs. LeRoy A. Petersen, Otis president, expects 80% of this year's sales for office buildings to be of this type. As recently as 1950, only 12.6% of Otis sales to office buildings were operatorless.

The high rate of postwar building and remodeling has given Otis an enormous lift. In first-half 1953, the company booked 67% more contracts for new elevators than in the same 1952 period, and net operating profit was up to \$7-million from \$6-million. With no letup in construction and modernization of office buildings, there's no sign of a slump in the elevator business.

But Otis isn't resting at that. Right now, it's in the process of integrating its newly acquired company: Transmitter Equipment Mfg. Co., of New The new Electronics Division has just moved into five floors (150,000 sq. ft.) of an air-conditioned building at 35 Ryerson St., Brooklyn.

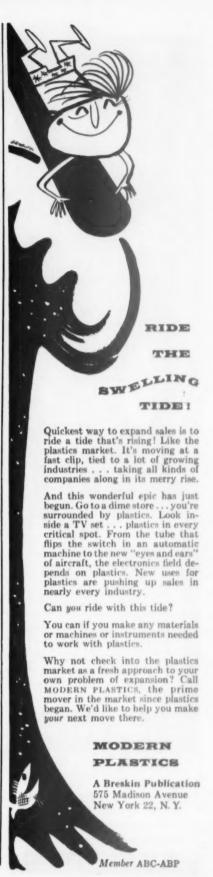
· New Worlds, Maybe-The new division will have a free hand in research, including exploration of fields remote from elevatoring. It will have a staff of 500 employees now, and 1,000 or more as the work load increases.

The Transmitter Equipment company brings to Otis the experience of 17 years' manufacture of electronic equipment-its sales have run lately between \$2-million and \$3-million a year. It also provides its president, Morton B. Kahn, as manager of the Electronics Division. Kahn will concentrate on electronics; engineering phases of the new operation are under Otis' chief engineer, A. W. Paulson.

The division is now working chiefly on government contracts for electronic trainers for copilots, navigators, and bombardiers. Transmitter Equipment held military orders for these elaborate 1,600-sq. ft. layouts that simulate all kinds of flying conditions. Otis has other defense contracts too: About 22% of total sales are for defense work.

"As set up," says vice-president Bruce H. Wallace, "the new division has nothing to do with elevators. It will explore new applications of electronics in many fields, including elevatoring."

• Electronic Age-"From now on, we'll be living in a saturated atmosphere of





electronics," president Petersen states. "The extent and direction of our expansion in that field will be determined by further developments. Otis will be led into related types of electronic work, one step at a time. The new division will give us greater skill in the field of electronics in general, so we'll be in a better position to apply it to elevatoring."

Otis officials agree that "electronicmechanical" is a sharper definition of their brand of operatorless elevator service than the commoner term "electronic." They feel that research from now on must combine electronic science with mechanical engineering for elevators and for other items, too.

• Experience—Otis has already had experience in nonelevator electronics. At the request of the United Nations, it developed a touch-button system by which the chairman of a U. N. meeting could tell the order in which delegates asked for the floor. The system proved practical, but too expensive for the U. N. to buy.

The company has also helped to develop an electronic "color organ," which projected colors on a screen as a visual interpretation of music, and an electronic safety device to keep a punch press from operating when any part of a worker's body is in a danger area.

• Elevator Business—Autotronic Elevatoring was introduced in 1948. Elevators had been operated automatically since 1915, collectively controlled and operated according to signal since 1924. The 1948 novelty combined mechanical and electronic features in a system for operating entire banks of elevators.

This system involves electronic touch buttons—nothing moves, but your finger sends a signal electronically—and electronic safety shoes on the doors to keep them from closing while anyone is entering or leaving the car. But it also involves devices of the electronic-brain type: a weighing device that reports when a car is full, and a computer that directs a bank of cars so as to handle a traffic pattern most efficiently.

"The present elevator system does everything that we can see is needed," says vice-president Wallace. "The computing device looks perfect to us. But who knows what developments may lie ahead, beyond anything we can imagine now? That's where our new Electronics Division comes in."

• Keeping in Step—Progress in elevator design and engineering has gone hand in hand with development of the modern skyscraper. Before Elisha Otis put safety into elevators, hoists were entrusted only with light, not too valuable loads. Buildings were limited to about five stories; even so, upper floors went begging at low rents.

Otis installed his first passenger elevator in 1857 in a five-story china and glass store in New York. It had a speed of 40 ft. per minute, with belt drive from a shaft. Modern elevators often travel 1,000 ft. a minute, but the 1857 model was a nine-day wonder.

• Hydraulic and Electric—Steam-driven elevators were installed in leading hotels in the early 70s, but the real elevator boom started when the hydraulic system was invented in 1872. Otis installed the first group of "high-speed" hydraulic elevators in the Borcel Building, New York, in 1879—and architects then began to design buildings as high as brick bearing walls could be raised. The company's biggest contract in those years was in 1883 for nine hydraulic elevators that are still in use at the Produce Exchange, New York (BW—Oct.10'53,p176).

Electric elevators came in 1889, but until 1903 they were slower than hydraulics. However, they didn't depend on pistons as hydraulic cars did, so they permitted almost unlimited rise. Thus, they made possible the development of skyscrapers as soon as steelframe construction was perfected.

COMPANIES BRIEFS

Earthmoving mergers: Acquisition of Euclid Road Machinery Co. of Cleveland by General Motors (BW-Aug. 15'53,p56) is now official. Raymond Q. Armington stays on as management head. . . . Allis-Chalmers' acquisition of Buda Co. of Harvey, Ill., is assured. Time for protests by dissenting Buda holders has run out.

Merry-go-round business of Allan Herschell Co., Inc., of North Tonawanda, N. Y., oldest and largest manufacturer in the field (BW-Aug.4'51,p88), has been bought by Wiesner-Rapp Co., Inc., of Buffalo. The last of the family building merry-go-rounds died last December. Wiesner-Rapp is a maker of special industrial machines.

Two Ohio toolmakers are talking merger: Lodge & Shipley Co. of Cincinnati and Columbia Machinery & Engineering Corp. of Hamilton. Columbia reports net sales of \$2.7-million in 1952, mostly in hydraulic presses for the plywood industry. Lodge & Shipley makes lathes and other machine tools.

You can now buy a ticket on United Air Lines for any Chicago airport—not just Midway Airport, where United lands. The line has signed a pact with Midway Airlines, which operates 56 flights daily between Midway Airport and three outlying fields in the area.



Test for businessmen...

with good vision!

Here's an easy way to test your vision—business vision, that is:—

Just take a critical look at your plant equipment—your lathes and other machine tools. Are you absolutely positive that there aren't any lathes on the market today that can run rings around your present ones production-wise?

If you're a businessman with good vision—if you see that your present lathes aren't producing as much, as cheaply, as one of today's models—then you'll start doing something about it! For there's no escaping this truth:

Machines—not dollars—create productivity!

It's easy to see, too, that today when there is little likelihood of lowering costs tax-wise and wage-wise, greater output through the use of more productive equipment offers the only sound method of keeping your company competitively progressive!

We'd like to have the opportunity of demonstrating how new Monarch lathes can help solve your present problems—how they can convert invested dollars into profitable productivity. We can do it with job reports, brochures, and movies—every one a real eye-opener! . . . The Monarch Machine Tool Co., Sidney, Ohio.

GREATER PRODUC-TIVITY of Monarch lathes stems from our continuous development and research program. It has, for example, been responsible for the Air-Gage Tracer method of cost reduction (right) which has received such widespread acceptance





FOR A GOOD TURN FASTER . . . TURN TO MONARCH



3500 ... less 25%

mid-western meat-packing plant . . . em-ploying 3500 people . . . after a year of testing, found that Mosinee towels dispensed from Sentinel Controlled-type Cabinets actually cut towel consumption 25%. Towels previously used, cost less per case . . . but Mosince Towels cost less to use . . . so this plant has standarized on Mosinee "Controlled" Towel Service.

> Write for tree samples and name of nearest distributor





TIME? Dictate whenever you want-without interruption. "Rush" dictation goes through first. MONEY? Your secretary types faster because dic-

tation is mistake-free thanks to the exclusive Correct-O-Matic feature.

Use magnetic, mailable discs again and again.

Take the light-weight Voice-Master Dispatcher on * FOR PROOF, send coupon. trips.

The only DICTATING MACHINE with Correct-O-Matic

Magnetic Recording			Industries		
Dept. 82, 30	Broad S	t., New	York	4, N.	Y.

I want proof of Voice-Master's savings. Send free literature.

Name

Address City_

Zone ___State

MANAGEMENT



NEW PRODUCTS, NEW PLANTS are the key as new management peps up an old company, puts its unused cash to work. Townsend Co.'s general superintendent Robert Casner (light suit) consults with workmen on layout of new Ellwood City (Pa.) plant. Wall and table have schematic layout plans. New lines mean . . .

Eight years ago trustees in effect told the family that owned the 129-year-old Townsend Co. of New Brighton, Pa., that they'd better get out. The trustees argued: The business looks rich, maybe too rich, but it's really cash-poor; its money isn't working. Sell out before it's too late.

The family didn't take the adviceat least not completely-partly because an acceptable cash offer was hard to find for this manufacturer of solid-steel rivets. It still owns 70% of the stock, and right now the failure to sell out proves comforting, indeed.

Two things have happened in the eight years:

· The inflationary boom tided things over temporarily.

· Modern professional management turned the company in new directions.

I. From Old to New

When the trustees told the family owners to look in the mirror, this is what they saw. The company was long on cash-from 1945 through 1948 its current assets averaged 4.6 times current liabilities. Its June 30, 1946, figures showed almost \$2.5-million cash in the \$3.75-million current assets; receivables were \$463,000 and inventories only \$810,000. And the firm was long on business, as who wasn't then. Trouble was, it wasn't entirely desirable business.

Competitors in the rivet trade, in which Townsend had been a big factor since 1816, were using limited steel supplies to make, say, nuts and bolts at \$475 a ton. Townsend was adding rivet capacity to sell at, say, \$225. The trustees didn't believe Townsend could keep all that rivet business under more competitive conditions, saw the firm would plainly have excess capacity whenever steel became easy to And the future of the solid-steel rivet business itself wasn't too attrac-

· New Life-Today the current assets to current liabilities ratio is down to 2.3 to 1, there's a short-term note for \$750,000, and Townsend is negotiating to borrow \$2.5-million on long-term notes. Current assets have jumped 85% to \$6.9-million (only \$983,077 in cash), and working capital is up 37% since 1946. Net worth has risen 78%and net profits have more than doubled.

More important is the turning of the company toward new markets. The company has tripled volume by acquisitions in allied fields; it has built one new plant, has a broad sales organization, a cost-accounting system, employee training programs, an executive com-



NEW SALES CAMPAIGNS, like this sales clinic on cold-forming, to show customers advantages of newer cold-formed products over standard screw-machine pieces. Under president F. R. Dickenson (cover), Townsend brings in design, cost, production engineers of customers for these clinics. It's one of management's ways of . . .

in New Business Tactics

mittee. Eight years ago it didn't even have an advertising program.

II. Shifting Gears

When a second look at that time indicated the company might still be a good long-pull bet, McKinsey & Co., management consultants, was hired to study it—and recommended a thorough reworking, of people, products, plants.

The owners and trustees bought the recommendations, gave McKinsey the job of turning up an executive vice-president who could move up after a proving-out period. McKinsey turned up, and Townsend hired Frederick R. Dickenson (cover), then Detroit works manager for American Blower Corp. Dickenson moved up to become president of Townsend in September, 1948. After nearly five years, he figures the company is well on its way—but still in transition.

• After Rivets, What?—The old solid rivet business has been holding up pretty well, thanks to the postwar and Korean booms. But what's been happening to it is illustrated by last week's shock, as Dickenson calls it, when an automobile manufacturer notified Townsend he was switching to welded wheels next Jan. 1. The faster, cheaper, more precise method of welding has taken much of the shine off the solid

rivet trade. The aircraft boom boosted use of blind and aluminum rivets, but Townsend figures that is leveling off, too.

All this was laid out in McKinsey's 1946 report. Dickenson began at once to look for the answer, and found it soon after he found out what Townsend's 850 workers and 600 machines at New Brighton could do. What they could do is to cold-form wire, rod, or small steel bars into an incredible variety of products—nuts, screws, rivets, studs, toy or mechanism parts, terminal posts, housewares, even bottle openers—literally dozens of items.

Townsend can do this at the rate of 60-million pieces daily at the New Brighton plant alone—80-million a day when the whole property is trying.

• Advances—Cold-forming (or upsetting, or cold-heading) is hardly new, but it's made technical advances that greatly broaden its scope. With the perfection of cemented-carbide dies, it got a material that lasts easily through mass-production runs of small, precision parts. For penetrating the screwmachine market (which makes precision parts from bar-stock by cutting tools), cold-forming has the advantage in many cases of being substantially cheaper and more versatile.

In Dickenson, cold-forming has found an apostle who thinks it's enough better

Is a better Service Award Plan worth writing for?

For just a few seconds time and the cost of a Sé stamp, you can learn about a Service Award—

- (1) As desirable to your employee as it is to you.
- (2) That honors you as much as your employee.
- (3) That is a constant, instant reminder of your appreciation.

It's all part of the interesting Lord and Lady Elgin Service Award story detailed in the free, noobligation booklet. It's yours for the writing. Address below:

Service Award Department, Box 10 Elgin National Watch Company Elgin, Illinois

ELGIN



LADY ELGIN GAYETY and LORD ELGIN MENSLEE. Case engraving with special company identification (including trade mark reproduction) available on back.



PREFER
WEBSTER'S MICROMETRIC
CARBON PAPER



MARY M. THOMAS
Secretary to the Vice President
and Sales Manager,
Ford Instrument Company
Division of The Sperry Corporation
Long Island City, N. Y., says:
"Micrometric allows for better letter
placement... makes handling of
carbon paper easier."

Miss Thomas speaks for thousands of top secretaries who appreciate the way Webster's Micrometric with the exclusive scale edge speeds typing and keeps fingers smudge-free.



One look at the scale edge tells how many lines of typing space remain — prevents "running over." And the same uncoated scale edge protects fingers and papers.

Trouble-saving Micrometric costs no more than any good carbon paper and comes in weights and finishes for every need. Try it soon! Ask your stationer about the whole famous Webster line of carbon papers, typewriter ribbons, spirit and duplicating supplies.

WEBSTER'S

MULTIKOPY

MICROMETRIC CARBON PAPER



COLD-FORMED products, new Townsend line, are made on these machines.

than screw-machine practice in many applications to snatch a \$200-million annual bite of the screw-machine industry's volume of perhaps \$2-billion. After he'd been evangelizing the trade for a couple of years, he got the highest elective office of the Industrial Fasteners Institute—and IFI will soon publish a manual on cold-forming.

• Sales Promotion—But, at Townsend, Dickenson instituted a series of cold-forming clinics at which company engineers told their story to men from customer companies. But this was a late step in his sales campaign, which began with getting a sales manager, adding four new sales offices, boosting the sales staff from seven to more than 40. He also started a business-paper advertising campaign that pulled in considerably more business than Townsend could handle.

• Expansion—Dickenson had a definite mandate to put to work the \$2,475,000 cash that was in Townsend's till when he took over. This led to examination of the market, geographically and by industries, and the conclusion that Townsend sold little on the West Coast or in the aircraft industry.

So, in January, 1951, Townsend acquired by exchange of stock the Cherry Rivet Co. of Los Angeles, largest producer of blind aircraft rivets. Townsend spent \$650,000 for a new plant at Santa Ana, \$700,000 for more working capital. Result: In a year and a half, Cherry's gross tripled.

Eight months later, Townsend acquired Dunn Steel Products Co. of Plymouth, Mich., by another stock exchange, plus undisclosed cash. Dunn, a producer of cold-formed parts for the auto industry, also became a division of Townsend, which again put in working capital. It's building a \$500,000 plant.



60-MILLION A DAY, pieces come from Townsend plant ready for shipment.

Latest expansion move came early this year, with a \$313,000 investment in Parmenter-Townsend Co., Ltd., of Ganonoque, Ont. This firm owns the common stock of Parmenter & Bulloch Mfg. Co., largest Canadian producer of solid and tubular rivets. The move helped fill another Townsend marketing yold.

• Going Up—Product mix, sales promotion, expansion—the effect of all this has been gratifying. In 1946, Townsend was grossing about \$6-million, more than half of it in solid-steel rivets. In the fiscal year ended last June, gross was up to \$17-million; solid rivets, though up in dollars, accounted for a much smaller share, and special parts were up nicely. Net profit had jumped from \$355,000 to \$824,757.

III. It All Takes Time

There's still more shift to come in product mix, as well as more volume, Dickenson believes. For 1960, he forecasts a \$23-million gross, with solid rivets accounting for less than one-fourth of it. Cold-headed specialties will be the big item, Cherry rivets about as important as the solid line, and tubular rivets double 1953 volume.

Having modernized management, put unused cash to work, located the new market to replace solid-steel rivets, Dickenson's main concern now is to bring Townsend to a point where it can properly exploit cold-forming in the screw machine market. That'll take equipment, highly skilled operators, and a larger engineering staff trained to show customers how properly to use cold-forming, how it cuts the cost of parts. All this will take five years.

"We've got a lot of work to do on pricing," Dickenson adds. "We've been giving the customer most of the saving, relying on that to develop business. When you do that you must be right on your costs. There was no cost accounting at Townsend six years ago."

• New Plant-Meanwhile, the company will be shoving hard on a new plant at Ellwood City, Pa., near New Brighton. The current plant is old and high-cost, can't be expanded. A year from now, Townsend hopes to move secondary operations to a \$1-million plant at Ellwood City. Ultimately it will move all New Brighton operations to a second, \$2.5-million Ellwood City plant.

There, Townsend expects to have room to expand or shift with the market, and costs low enough to develop

its market still further.

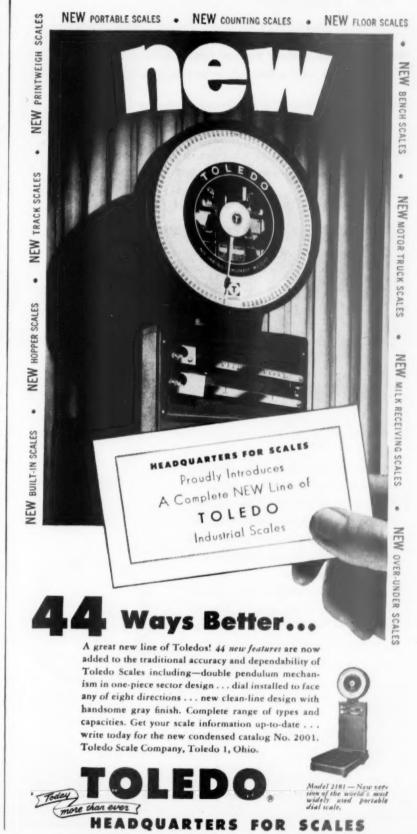
"We could probably borrow \$5-million and do the whole job now," savs Dickenson, "but that would be all we could support. We'd be borrowed up -couldn't expand or acquire anything new for some time. So we'll settle for half the job-and go on training engineers and operators—and the customers' design people, too."

· Employee Angles-Dickenson's management policies aren't concerned only with machinery, plants, and costs: He makes a near-fetish of genuine employee participation-something he first tried out when he organized an industrial relations department for American Blower in Detroit during the early days of CIO militancy, following work on a joint management-labor job-evaluation program. Of the latter, he says: "It worked out well because it was a joint effort, and because there was worker participation, it was accepted."

You get the impression Dickenson feels this idea of genuine participation by employees and management at all levels is the most important single thing he brought to Townsend. At Dunn Steel Division after Townsend took it over, the plant manager talked not only with the foremen but with all 100 plant workers before the final plant layout was O.K.'d. After the contract award, there were more talks, with a scale model. Plant manager John G. Spruhan says it made for better relations, many good suggestions.

· Personal-Dickenson, a Canadian, went to American Blower's cadet course in 1924 with a University of Toronto engineering degree. He was in the sales field until he took on the industrial relations job in 1939 and four years later the position of Detroit works manager-his job when he went to Townsend.

He got the Townsend job almost by sheer luck. He left American Blower when it became obvious he'd never get to the top there. So for seven months he looked for another presidency-and ran onto McKinsey & Co. just when it was hunting up an executive vicepresident for Townsend.



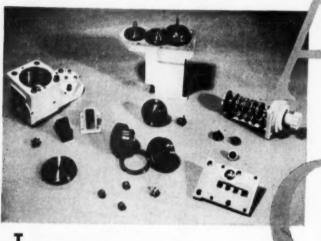
Ask yourself

How would you make a train of twelve different gears in which the total allowable error was 1/3 of a mil?

How would you hold the maximum composite error on gears to 0.001 inch?

How would you hold hole locations to 0.0001 inch and shaft diameters to 0.0002 inch?

... and do it all on a production basis?



he prime contractor on this elevation setting counter knew how: he turned the whole job over to Daco. Our engineers studied the prints, suggested design revisions, produced prototype models, and are now turning out the counters on a production basis.

If you have a complex instrumentation problem, there's a moral here for you: if you "call it difficult—call Daco." DACO MACHINE AND TOOL CO. 202 Tillary Street, Brooklyn 1, N. Y.



Write for our quarterly, Daco Doings.

From prototype to finished product



New Wrinkle . . .

... in employee stock purchase is offered by Eastman through tie-in with Quinby Co.'s monthly pool.

Eastman Kodak Co. is offering its 50,000 employees a system whereby they can accumulate company stock through payroll deductions. The novel aspect of the new arrangement is that Eastman is not handling the stock purchases itself. Instead, it has tied in with Quinby & Co., Rochester investment house and originator of the Quinby Plan for stock buying (BW-Aug.23'52, 208).

· Averaging-The 15-year-old Quinby Plan, conceived by H. Dean Quinby, Jr., works like this: A customer wishing to buy Eastman Kodak stock pays Quinby a fixed amount, say \$25, each month. (Under the new Eastman employee group plan, this amount will be taken as a payroll deduction.) Quinby pools the monthly subscriptions of all its customers and buys as many shares of Eastman common as the money will bring. In a fluctuating market, a customer might get six-tenths of a share one month, eight-tenths the next, and so on. This is the principle of "dollar averaging": buying stock regularly rather than buying it when the price looks right. In the Quinby Plan, dividends-cash or stock-remain in the customer's account and are used to buy

• First—Quinby & Co. has some 3,500 individual plans in operation—they're used to buy Eastman, du Pont, General Motors, and Standard Oil stock. But the tie-in with Eastman Kodak is the firm's first group plan.

more stock.

Eastman settled on the Quinby Plan after an extensive study of possible arrangements that might be made for its employees. It decided that any plan that might be developed within the company would not offer any special advantages over those already available through the Quinby Plan.

Furthermore, because it keeps itself out of the business of selling its stock, Eastman doesn't have to register new shares of stock with the Securities & Exchange Commission, doesn't have to set prices on shares with the possibility of a market drop, and doesn't have to get permission from stockholders to issue shares.

• No Pushing—Both Eastman and Quinby are refraining from pushing the plan: They want to avoid impulsive signing up and subsequent dropping. Over 3,000 employees currently own Eastman stock, but Eastman has not had a regular sale plan for 25 years.

You squeeze the trigger ...and nothing happens

A "RESISTOR" burned out! The guns won't work! Yes, sixteen cents worth of wire wrapped around a poor ceramic core can disrupt the operation of a million dollar jet plane. Seems incredible...yet the tiny heart of this and most other electrical systems is the resistor.

Why did it burn out? One common reason for resistor failure lies with the materials used in manufacturing the core. If the ceramic body isn't of proper crystalline structure, it can cause a serious variation in the physical and chemical property, resulting in unstable electrical performance,

To maintain an accurate check on the properties of materials used in their resistors, technicians of Ward Leonard Electric Co. – nation's foremost maker of resistors—turned to equipment engineered by North American Philips, a leader in electronic research.

NORELCO X-ray Diffraction is the answer

The characteristics of materials can be determined by their atomic structure. Analysis of ceramic substances by non-destructive Norello X-ray Diffraction prior to processing enables Ward Leonard technicians to predict their suitability. It takes less than two hours, whereas ordinary chemical methods require a week or more.

NORELCO serves science and industry

Throughout all phases of industry, manufacturers find a multitude of economical uses for Norelco X-ray Diffraction. It has profitable applications in research, new product development and production control.

Doubtless you will find the precision manufacture, creative engineering, and imaginative thinking of Noreleo useful in your field. Noreleo products include: Industrial Radiographic Equipment, Electron Microscopes, Research and Control Instruments, Metallurgical Products, Diamond Dies, Electronic Tubes, Precision Timing Motors and Relays.

Non-destructive Norteleo X-ray Diffraction can provide invaluable aid to your organization. The technical staff of North American Philips Application Laboratories is available for free consultation. Write also for booklet "Three Powerful X-ray Tools."

Many Users, Many Uses

California Institute of Technology * Dowell Incorporated * Gulf Research & Development Company * Kaiser Steel Corporation * Arthur D. Little Inc. * Monsanto Chemical Company * North American Aviation, Inc. * Pacific Coast Borax Co. * Phillips Petroleum Company * Rutgers University, The State University of New Jersey * Sinclair Refining Company * Sprague Electric Company * Standard Oil Company (Indiana) * State of Nebraska, Department of Roads and Irrigation

Norelco

Serving Science and Industry



NORTH AMERICAN

PHILIPS

COMPANY, INC.

• Dept. B-3 — 100 East 42nd Street, New York 17, N. Y.

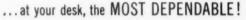
In Canada: Bogers Majestic Electronics Ltd., 11-19 Brenteliffe Road, Leavide, Toronto 17, Ontario

You are looking at the MOST HONORED



DICTATING INSTRUMENT in AMERICA!

...and the MOST WANTED!



Tiny but tough, the Edison-engineered "Veep" takes the most rugged daily desk use. Years ahead of the field, yet priced below it, it's the logical choice for salesmen and staff, too . . . !



... cross-town or cross-country. the MOST **VERSATILE!**

> The V.P. was designed to be twice as useful as any other dictating instrument, Slip it right into your briefcase or bag

-take it to meetings, conferences, on trips.

Take it home and talk away your "homework!" It records wherever you go, like a high speed camera! under your arm, the MOST CARRYABLE!

> Book-shape, book-size, the V.P. is the smallest, lightest, most carryable instrument on the market! It's half the cubic size of any other. You can literally tuck it under your arm!

EDISON VOICEWRITER

The famous Edison Diamond Disc is durable, mailable, re-usable . . . and interchangeable on all EDISON disc equipment. Thus the V.P. integrates perfectly with TELEVOICE, the dictating phone network that speeds office work flow.





GET THE FULL FACTS in free, 12-page full-color booklet "GET ACTION ON THE GO!" Just clip coupon to your letterhead and sign. Or phone local Edison Voicewriter representative.

EDISON, 26 Lakeside Avenue, West Orange, N. J. O.K., send me "GET ACTION ON THE GO!"-no obligation,

COMPANY_ ADDRESS_

What Ford is Cotting for \$1.4-

...In Expanded Plants ...



BASIC MATERIALS:

Rouge steel ingot capacity increased.

New ore ship, William Çlay Ford, in service, 1953.

New coke ovens, rolling and finishing equipment completed 1953.

CASTINGS, ENGINES AND STAMPINGS:

Dearborn Stamping Plant, Iron Foundry, Specialty Foundry, and Engine Plant remodeled and improved, 1950-53.

New Cleveland Engine plant opened 1951.

New Cleveland Foundry opened 1952. Plans for second Cleveland Engine plant announced 1953.

New Buffalo Stamping Plant completed 1951.

New Stamping Plant at Cleveland announced 1953.

FORGINGS, MACHINED PARTS AND SUB-ASSEMBLIES:

Mound Road Division plant in operation, 1949.

Canton Forge Division purchased and in operation, 1948.

New Automatic Transmission Division plant in operation at Cincinnati, 1950.

New Livonia Tank Division plant completed 1952, to convert to

automatic transmissions in 1954.

Parts and Equipment Manufacturing Division gains Monroe plant (1949), expanded Ypsilanti plant in 1948 and again in 1952-53.

ASSEMBLY AND DISTRIBUTION:

Ford Division gains new Atlanta and Kansas City facilities, plans new assembly plants at San Jose, Calif., Mahwah, N. J., and Louisville, Ky., rebuys Narfolk, Va., plant. Builds 17 new parts depots, modernizes others.

Lincoln-Mercury Division gains new assembly plants at St. Louis, Mo., Metuchen, N. J., Los Angeles, Calif., and Wayne, Mich.; new parts depot at Detroit.

An Auto Empire Decentralizes and



OFFICES, LABORATORIES AND

Parts depots provide new offices for field sales personnel.

New Administration Building for Central Staff at Dearborn.

New office building in Rouge for five operating divisions.

Four buildings of 750-acre Research and Engineering Center completed at Dearborn, 1953.

Ford Rotunda renovated and reopened as hospitality center, 1953.

DATA: American Machinist

... And in ...

1945

Now

. MANAGEMENT

One-man authority supported by a small group

Modern line and staff setup, organized for depth and quality. Training programs in force

... MANUFACTURING ACTIVITY

Concentrated at the Rouge Plant in Dearborn

Rouge Plant still the hub, but expansion was put elsewhere to gain "breathing room," tap new labor supplies, get closer to assembly

... PLANT AREA

28,400,000 sq ft

66,600,000 sq ft

... EMPLOYMENT

122,289 (in 1940)

193,874

... FINANCIAL POSITION

In the "red"

Able to self-finance \$1.4 billion expansion program, with more to be added

... MANUFACTURING ORGANIZATION

One huge entity controlled by a few men

Fifteen separate operating divisions, managed by their own organizations

... COST CONTROL

Vague, with Rouge costs often exceeding those of vendor's prices

Divisions operated as "profit centers" competitive with best outside source

... ENGINEERING & RESEARCH

Small Engineering Laboratory with inadequate research and testing facilities

\$80,000,000 Research & Engineering Center nears completion. By Jan. 1952 employment was 4600

... SALES POSITION

Third in industry

Second in industry

... PRODUCTION CAPACITY

Choked by obsolescence and concentrated activity

Rapidly nearing parts-manufacturing capacity of chief rival; costs are favorable because of automation, high-speed machining, and latest type equipment

CBUSINESS WED

Reorganizes

BUSINESS WEEK . Oct. 17, 1953

When Ernest R. Breech, executive vice-president of Ford Motor Co., broke ground the other day for a new main administration building at Dearborn,

Mich., it marked another step in Ford's mammoth \$1.4-billion expansion program.

From a standing start in 1945, Ford



"... haul a falling industrial giant back into an upright position ..."

FORD MOTOR starts on p. 130

is now about two-thirds of the way through its expansion.

In a classic example of the old saying that you have to spend money to make money, Ford's new plants and refurbished old ones have brought manufacturing costs down to a point where the company says it can meet any price competition.

Specifically, the Ford car division is now in a position to meet the production competition of its chief rival, Chevrolet. In several recent weeks, Ford's production was greater than Chevry's, according to Automotive News

• What You Get-In its October issue this week, American Machinist, a McGraw-Hill publication, gave a 64-page detailed study of what you can get in the way of plants and modern production machinery for the \$900-million-plus already spent. For the first time, the magazine pulled together the results of Ford's expansion. The map and tabulation (page 130) show the results.

I. The Big Switch

What Ford had to do was haul a falling industrial giant back into an upright position. And to do that it first had to adopt a management concept that made possible a modernization and expansion of manufacturing facilities.

Henry Ford set a pattern in automotive manufacturing when he established the industry's first branch assembly plant in Kansas City in 1911. During the years when the Ford Motor Co. sat comfortably atop the annual sales column, it had 32 such branch assembly plants. So factory dispersion isn't new to the Ford empire.

But Ford's present growth outside of Detroit isn't more of the same. Old Henry scattered assembly lines from coast to coast to save shipping costs.

• Spreading Out—Young Henry and the new management he brought in when he took over in 1945 are running up manufacturing—as distinguished from assembly—plants across the map. There's a big difference between the two, in automobile manufacturing in general and in the Ford company in particular.

Henry Ford built on the River

Henry Ford built on the River Rouge probably the largest one-company manufacturing complex ever known. Partially from an office in the engineering building, but mostly by walking around his industrial acres,

Henry Ford and a handful of associates directed the Rouge machine that was supposed to, and very nearly did, supply all the components needed by the 32 branch assembly plants. It was all under

Logan Miller, now a vice-president

his watchful eve.

in the manufacturing division, recalls his days as head of the engine plant in the Rouge in 1925. He had a desk on the open floor, but no chair. "A plant manager never heard of direct or indirect labor costs," he says. "The only figure I ever saw was the quota I had to make before quitting time."

• Model T Setup-That concept of managerial responsibility existed right up to the end of the war. Breech told a management meeting recently: "We entered a lush postwar sellers' market with an industrial organization that was about as modern and competitive as the Model T.

Breech and Young Henry found one solid asset: the Ford dealer organization. With it they were sure they could sell all the cars and trucks they could produce. The management decision that had to be made was how to produce economically and efficiently.

II. The First Step

At the outset, the plans called for getting management out of the factory. As part of the expansion, one new executive building has been completed. The new main administration building for which Breech broke ground two weeks ago is an extension of this

For the first time in its history, Ford has a normal corporate setup with semiautonomous divisions keeping their own books (BW-Jun.13'53,p93). Management decentralization was basically completed along about 1948 and the company could tackle the manufac-

turing expansion.

New assembly plants were going up during the management reshuffle. Notably a Ford assembly plant at Atlanta and Lincoln-Mercury's first plants at Metuchen, N. J., and Los Angeles. But manufacturing still was principally in the Rouge. With the new management concept at Ford, it was possible to sweep aside the old idea that everything had to be made at the Rouge. · Choice Spots-With decentralized management, manufacturing no longer had to be kept under the top man's feet. Ford could take advantage of locations available outside the Rouge area.

When they first started planning the expansion, Ford officials didn't know how much it would cost or how long it would take. Breech made a rough estimate that it would take \$100million a year spread over five years. Actually, it has averaged out at about \$200-million a year and all the work may not be completed until 1957.

III. How It Was Done

The expansion has been charted with the help of two distinct yardsticks.

First, to decide what type of manufacturing should be expanded, Ford uses (1) market analysis to determine (2) capacity requirements, which are matched against (3) existing capacity.

To decide where to locate the new capacity, the second vardstick is used. Its markers are availability of (1) transportation; (2) materials; (3) labor; (4) utilities, power, and water. Finally consideration is given to the tax structure of the community and the community's

cordiality toward industry. Those criteria have caused Ford to set up the new manufacturing plants in either established or growing industrial areas. And it has resulted in a small-scale Rouge abuilding in Cleveland where there is a foundry and engine plant, a new engine plant under way, and a stamping plant that has been announced. That indicates that Ford hasn't necessarily junked the concept of centralized manufacturing.

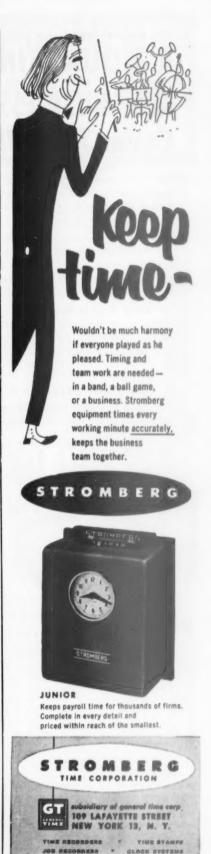
· Still the Rouge-The fact is that Rouge plants right along have been modernized, some enlarged. The area could not accommodate any new factories, but it hasn't dwindled much in importance. The company has spent more than \$100-million there. It's true, though, that Rouge employment is off slightly from the 1946 figure due to transferral of some jobs to other facilities in the Detroit area. Then, too, there has been an even more significant change. Since 1946, Rouge employment has dropped from 60% of total Ford employment to 44%. But all this just means that Ford is getting bigger outside the Rouge.

By starting practically from scratch to build a new manufacturing empire, Ford has had one major advantage: It could put in the latest in automation. Many consider that it is further advanced than any other auto company in this new technique. As Ford has installed automation, it has profited from examples. The Cleveland stamping plant will have refinements indicated by experience in Buffalo.

On top of this, American Machinist points out that Ford has a number of firsts in high-speed machining and highspeed presses-engine machining at twice normal speed, press lines running 16 to 17 strokes a minute against the usual six or seven.

IV. The New Strategy

The Ford division has got slightly more of the expansion dollars than the other divisions. That's because the



The Prophet could have said:

MOUNTA **NEW BUSINESS** Comes to YOU!

INTERNATIONAL SOFT DRINK INDUSTRY EXPOSITION

HERE'S an industrial show offering a rare opportunity for your company to contact, under one roof, the top management, as well as the production and marketing executives of the nation's Soft Drink Industry.

FOR 4 DAYS executives of the industry's 6,000 plants will be at Chicago's International Amphitheatre . . . eager to see, to compare, and to BUY the newest equipment, products and services.

200 SUPPLIERS whose products are already in use by soft drink bottlers will be there to claim their share of this expanding market. And a very profitable share it will be, too!

HOW ABOUT your firm? Here's an opportunity to diversify your market, or to adapt your product to new uses of this rapidly expanding billion dollar industry.

> DECIDE TODAY to "prospect" this mountain of NEW business. Write for information about available exhibit space . . . or ask for complimentary admission credentials.

AMERICAN BOTTLERS OF CARBONATED BEVERAGES 1128 Sixteenth Street, Northwest Washington 6, D. C.



pad your profits

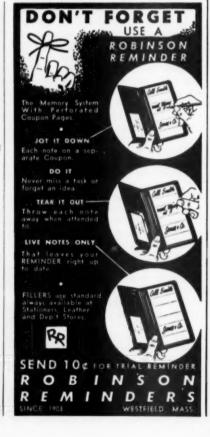
with a Webcor tape recorder

Profit minded executives in every profession are using a Webcor Tape Recorder to step up efficiency and increase their earnings. The Webcor Tape Recorder has a score of money making uses in business and training.

- . Records meetings and conferences
- Cuts costs in inventory taking
- Speeds sales training
 Helps develop efficient sales presentations
- · On-the-spot product demonstrator
- Tailor-made sound for slides and movies
 Pretests talks, speeches, commercials

A Webcor records two hours on one reel of tape. Keep recordings for life or erase and use over again many times. Precision made. For the name of your nearest dealer write,

bcor



company has one burning aim: to outdo Chevrolet. On the other hand, management is also mindful that the total program calls for beefing up a complete line of cars.

Breech says that when the expansion is completed Ford will have a straighttime daily capacity for the entire company line of 9.050 cars and trucks, mostly on a two-shift basis. Overtime and a third shift would kick that up considerably. The company, "for competitive reasons," won't break that capacity down into Fords, Lincolns, or Mercurys.

Sheer productive capacity is only part of the company's competitive problem.

· Stress on Sales-Over the long pullnow that the production program has rounded into shape-Ford executives think the key to future leadership will be salesmanship, not production.

It is bolstering its service organization by building 17 new parts depots around the country to supply dealers swiftly-and is pulling its field offices out of urban areas into these depots on the outskirts of town to save rental costs.

Ford executives say they don't have to match Chevrolet's capacity to beat it. The whole purpose of the expansion was to get enough production to be able to cat into Chevrolet's share of the market.

What the production program has meant as it passes the \$1-billion mark shows up in last month's figures. Based on figures from Ford and Automotive News, Ford output was 54% ahead of the same month last year; Chevrolet was 29% above 1952. In the first nine months of 1953, Ford output was up 70%, Chevrolet 88%. But Ford's third quarter figure, it says, was 140% over 1952.

Government allocations and strikes last year and this throw these figures out of kilter, of course. Still, the figures indicate Ford is catching up.

To achieve this, Ford has already spent \$900-million. It is firmly obligated for another \$300-million. In the end the program could cost more than the \$1.4-billion currently projected.

· No Borrowing-Where did it get all the money? Entirely out of earnings. says management. Not a cent was bor-

Breech has said that as of June 30, 1946, Ford was losing money at a rate of \$9-million a month. It is believed the company continued to operate in the red through the first half of 1948. But it's been shoveling out almost \$200million a year for new facilities in the past five years-and still has shown a profit.

As Breech commented: "We're lucky. incidentally, that we didn't have 45,000 stockholders clamoring for us to pay out this money as dividends.

Bosses' Health

... is really no different from others, but experts say that it does need constant check.

Last week at the sixth Industrial Health Conference, held at Houston, Tex., 500 industrial executives, company physicians, research doctors, and health association officers spent a major part of their time discussing: What can a company do to reduce the casualty rate in its executive group?

At the conclusion of the three-day meeting, one answer to this question stood out above all the rest: Require all executive personnel to undergo regular physical examinations.

• Executives Aren't Unique—This does not mean that there is any executive type physically, doctors say; executives suffer from the same diseases that all men in their age group suffer.

• How Often?—One proponent of a physical examination program is Dr. George M. Saunders, medical director of the Socony-Vacuum Oil Co., Inc. He recommended a biennial examination for executives under 40, an annual exam for those between 40 and 60, and an every-six-months exam for those over 60.

• Must Insist—The doctors at Houston who argued for such a program—on a must basis—reasoned that executives as a class often forego regular physical checkups and fail to pay heed to symptoms of illness.

Sufferers are reluctant to admit they feel bad. The doctors say, however, that top management no longer smiles when members of its executive team display such stoicism. The "carry-on" and "suffer-in-silence" schools are worth little when their graduates drop dead at 50 from a usually curable discase.

• New Attitude—One big drawback to such programs in the past has been the reluctance on the part of some executives to have the company doctor make his examination known to top management. And the company doctor, like the personal physician, is bound by medical ethics not to release a report unless the patient himself is willing.

There was some evidence at Houston, however, that this reluctance may be disappearing. One doctor reported that in two large companies, 95% of the \$10,000-and-over executives had taken complete physicals, and the majority were willing to let the results be made available to their superiors.

Need Tact—The relative willingness of executives to submit to a regular pro-

gram of physical checkups, the doctors find, depends largely on how the results of the exams are handled and on how the executive is handled when he does become sick or when he takes time off for a needed operation.

For instance, 20 years ago, many companies simply wrote off a man who had had a heart attack, a nervous breakdown, or a serious operation. The result was that once an executive was claimed by one of these ailments, he knew he was through as far as anything approaching a big job was concerned.

Today, with greatly improved medicines and treatments, this situation is changing. Many people with heart trouble, or a bad case of ulcers, are able to return to full-time activity after a few months.

• Cost Is Cheap—Many companies figure the cost of giving regular physical examinations at \$125 to \$150 per year per executive. The medical men at Houston said this was cheap compared with value received.

One large automobile manufacturer reported that medical exams of its executives showed 60% to have ailments of one sort or another, and 40% of this group were unaware of these ailments before the checkup.

MANAGEMENT BRIEFS

Howard Hughes started to rebuild Hughes Aircraft's management this week by appointing William C. Jordan as vice-president and general manager. Jordan was formerly with Hiller Helicopters and was president of Curtiss-Wright and Wright Aeronautical until 1949. Several members of Hughes' top management team have quit this fall (BW-Oct.3'53,p61).

Personal holdings cut: Radio Corp. of America chairman David Sarnoff and president Frank Folsom privately sold 75,000 shares and 37,500 shares respectively of RCA common on Sept. 22, it was disclosed this week. The two men had bought a total of 150,000 shares under an option agreement last February, and RCA common holdings of each were cut about 75% by sale. Probable profit before taxes: for Sarnoff, about \$281,000; for Folsom, about \$141,000.

Office time study programs pay off, according to the American Management Assn. Prudential Insurance reports production increased 20% in the average clerical section after the installation of work measurement. The Pru's program is used in 40 sections, involves more than 700 clerks.



EAGLE PENCIL COMPANY

New York . London . Toronto

Corner Brook St. Scale:

TINY HAMLETS, snuggled into island's coves, represent home for most . . .

CANADA

Newfoundland: Not



FOG is familiar visitor to Newfoundland's 6,000 mi. of jagged coastline. Fishing craft are familiar, too: For 400 years Newfoundlanders have taken their living from the sea.



... Newfoundlanders like this proud fisherman, dressed in Sunday best. It wasn't until 1948 that islanders voted to join Canada, give up independent dominion status.

Just Fish

Imagine an isolated, poor, rugged hunk of land about the size of California and with the population, say, of Louisville. Newfoundland, with its mainland territory of Labrador, has only 361,000 inhabitants, most of them scattered in tiny hamlets along thousands of miles of indented coastline, eking out a precarious living from fishing.

In the whole of Newfoundland there are only 3,300 mi. of passable roads, no cross-island transport save for a narrow-gauge railroad that meanders from east to west touching hardly a tenth of the settlements. In Labrador, there's hardly any communication save for the lakehopping float-plane.

 Asset or Handicap?—Four years ago, Canadians got this unprepossessing territory as their tenth province. It might be a strategic advantage, said Canadians, but certainly Newfoundland would always be an economic liability.

Now they're not so sure. Newfoundland, in the throes of a wild-swinging, often controversial, development program, could turn out to be Canada's biggest eastern asset. Or it could go broke again, as it has many times in the past. But no one can say that the Newfoundlanders didn't try.

• Tectering—As a colony, as a self-governing dominion, and later as a ward of Britain, Newfoundland has always tectered just this side of bankruptey. For 400 years after its discovery in 1497 by John Cabot, Newfoundland's only product was codfish. When the market was poor, Newfoundland failed. It was as simple as that.

The turn of the century brought an iron mine, later two paper mills. But cod was still king, and falling prices in the depression broke Newfoundland completely. The proud and independent islanders had to give up their dominion status. Many went on a 6¢-a-day dole from a British commission government.

• New Hope—War saved Newfoundland. Thanks to Canadian and U.S. air bases, and rising demand for fish, V-J Day found Newfoundland with an unprecedented \$29-million in the bank. Newfoundlanders were given a choice of government: revert to a dominion, keep the unpopular Crown commission, or join Canada. They decided to join Canada in 1948.

It seemed only natural that the people should install the great spark plug of the union-with-Canada campaign as provincial premier. They got a lot more than they bargained for. For a look at this unusual Newfoundlander and what he's done, turn the page.

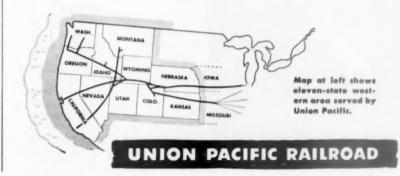


Thinking of "TRANSPLANTING"?

Selecting a new plant site . . . regardless of the purpose for which it is intended . . . becomes a major project when one realizes all the angles that the company's executives must consider.

There are many areas in the Union Pacific West that would come close to meeting your specifications—but what we'd like to do is help you find the *one* location that really has *everything* you're looking for.

That's why we suggest you get in touch with your nearest Union Pacific freight representative and let him start the wheels rolling. Or—outline your requirements in a letter to the Industrial Development Dep't, Room 292, Union Pacific Railroad, Omaha 2, Nebr. Either way, your request will receive prompt and confidential handling.









Joseph Smallwood: "Go ahead or fall behind. That's Nature's Law." And that's why he's . . .

Premier Joey, Newfoundland's Promoter

(Story starts on page 136)



POLITICIAN Smallwood calls on one of his senior constituents.



PREMIER Smallwood, reelected last year, campaigned hard this summer to elect Liberal Party to Ottawa parliament. His man won in the August Liberal landslide.

"Some of the things Joey Smallwood is doing are really crazy. But I do feel they'll do more good for Newfoundland than harm."

That was the none-too-charitable observation of a Canadian cabinet minister in Ottawa last week. But if you go back several years, such a statement would have been a positive endorsement. Then, Joseph Roberts Smallwood, the new provincial premier of Newfoundland, was regarded by many a conservative Canadian as a dangerous dreamer, a gambler, or worse.

His dream was a new economy for Newfoundland, based on new industry using natural resources of minerals, timber, hydroelectric power, and modern fisheries. Always a poor relation in the North American scheme of things, Smallwood saw Newfoundland being left further and further behind Canada's postwar industrial surge.

• Selling Job—He needed outside help. And for the last three years, Joey (as he likes to be called) Smallwood flashed across the business skies of Canada, the U.S., even Europe, preaching the gospel of Newfoundland's economic renaissance to dubious bankers and manufacturers. When, at first, the investors didn't materialize in droves, Joey almost dragged them in.

The outsiders had a depressing mind's-eye view of Newfoundland—a land of ice and snow, fog. frost, foul weather, and codfish. Trying to convince them to sink their money in new plants in Newfoundland took a lot of doing. Fortunately, Joey Smallwood is a salesman.

• Native Son—A bouncy, bow-tied, and dapper little man (5 ft. 6 in., 130 lb.), Smallwood has been, at various times, a pig farmer, labor leader, newspaperman, radio broadcaster. He's a true

native son, born in the tiny village of Gambo 52 years ago. Reelected last year as Liberal premier of Newfoundland, Smallwood speaks in the full, round cliches of the politician-salesman: Newfoundland "cannot stand still"; it must be "freed from the strait jacket of the past"; it is "either growth—or death" for Newfoundland.

• Advice—Smallwood's evangelism and hard work—often 16 hours a day—have been matched only by that of his side-kick, Newfoundland's Director General of Economic Development, Dr. Alfred Valdmanis. Smallwood, no economist, realized early that he needed expert, professional advice; Ottawa obliged by finding Valdmanis, a refugee economist from Communist Latvia who had come to Canada on a fellowship.

Now 44, Valdmanis had been finance minister, minister of trade, commerce, and industry, plus several other portfolios, in his native land in the 1930s. His contacts abroad have tended to give Newfoundland's development program something of a continental flavor; in fact European industrialists at first showed more interest in Newfoundland than Americans or Canadians.

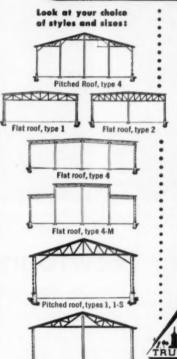
• Turn of the Road—This month has brought the Smallwood-Valdmanis team to a turning point. After four years of feverish activity, they feel the groundwork for Newfoundland development is laid; it is safely in the hands of private enterprise, and the provincial government can begin to get out of some of the businesses it has been in. They want to turn back to Newfoundland's oldest industry, the fisheries, and bring them completely up to date. "After that," confides Smallwood, "I can retire."

On Parliament Hill in Ottawa, the government still regards Smallwood as something of a dreamer. But from Prime Minister St. Laurent on down, it is pulling for him. With a good bit of luck and continued prosperity, the ministers believe many of Smallwood's ventures will prove successful. The story of these ventures so far starts on the next page.



ST. JOHN'S, provincial capital, is largest city with 67,749 persons.





Pitched roof, type 2

TRUSCON

Look at the clear production space. Look at the roof-supporting trusses. Look at the bright interior with plenty of daylight brought in through Truscon Steel Windows. Look at the space for materials movement. Here's a manufacturing set-up with everything in its favor!

This Truscon Steel Building is one of many standard styles and sizes mass-produced by the world's largest manufacturer of metal building products. All are beautifully-engineered structures which you combine in unlimited variations to fit your space requirements and your budget.

Truscon Steel Buildings offer the economies of standardization, plus fire protection, ease and speed of erection, low upkeep, high investment value. Top salvage value, too—they can be dismantled and re-erected at moderate expense.

Why not make a note now of your anticipated manufacturing, warehousing, and storage needs? Pass it along to Truscon engineers who will work with your staff to develop the building "package" you need. Truscon's free book helps you plan. Write today.

TRUSCON STEEL DIVISION

REPUBLIC STEEL CORPORATION 1076 Albert Street Youngstewn 1, Ohio

a name you can build on

MARK OF MERIT





TIMBER, piled high at Bowater paper mill, is major Newfoundland asset. Four-million acres have been opened to new investors.



GUSTAV WEIS, young German from Black Forest, brought wallboard factory to St. John's. It's partly government-financed.



ANOTHER IMMIGRANT industry, United Cotton Mills, makes shirts and pillowcases. German girl (in white) shows how to do it.



IRON MINES have just finished \$10-million expansion. Teams of geologists are busily exploring for more minerals.

New Baskets for Newfoundland's Eggs

It's a development process that premier Joey Smallwood calls "creating geese that will lay golden eggs for Newfoundland." Here is the record to date:

Manufacturing: 12 new small industries have been set up, three financed locally and the rest from Europe. Products include cement, wallboard, wood products, leather, rubber goods, machinery, batteries, textiles.

Fisheries: Three new frozen fish plants are operating, two more are building. U.S. investors are cooperating in one of them.

Mining: A dozen U. S. and Canadian companies are hunting for new iron, titanium, copper, lead, zinc, fluorspar, uranium deposits. Three producing mining companies are expanding.

Over-all development: Two power-

ful syndicates are exploring mineral, timber, and hydropower rights. The Newfoundland & Labrador Corp., originally a blend of Wall St., Canadian, and provincial capital, became a private company last month, taken overby a syndicate headed by Canadian Javelin & Machine Works Ltd., Montreal.

The second, and larger syndicate,

How UPF*works for you...



*Monarch's "Unified Production Formula:"



CASTING

MACHININ

FINISHING



= Better end-products at lower cost

ASSEMBLY

"Unified Production"—from castings to completed components give Monarch the wealth of experience necessary to solve your intricate casting problems. When you are designing a new product or reviewing one in production, rely on Monarch's unified responsibility to meet your quality standards—production schedules and budget requirements. Write today for Monarch's "Fact-File."

MONARCH ALUMINUM MEG.COMPANY

DETROIT AVENUE AT WEST 93rd STREET
CLEVELAND 2, OHIO

This wet-strength Patapar





oil drops won't seep through

Have you a problem that calls for paper that's strong when wet? That resists grease? That's absolutely non-

Those are some of the unique qualities of Patapar Vegetable Parchment. No amount of soaking or boiling in water will weaken Patapar. And when it comes in contact with fats, grease or oils it resists penetration. One type of Patapar (27-21T) is so grease-proof that drops of oil will stay on the surface in little globules. They will not creep or seep through.

Solves many kinds of problems

Made from pure cellulose, Patapar is non-toxic and has no odor, no taste nothing to impart "off" flavor. It makes a perfect protective wrapper for foods such as butter, bacon, hams, cheese, margarine, poultry, ice cream, celery, confectionery. In other fields it has such diversified uses as packaging oiled machine parts, drafting paper, rubber mold liners, separator sheets for mercury batteries - and an endless

variety of other applications.

If you would like more information and samples of Patapar for testing, tell us the use you have in mind. Write today.





Paterson Parchment Paper Company

Headquarters for Vegetable Parchment since 1885

"... there was interest right off the bat ..."

NEWFOUNDLAND starts on p. 136

British Newfoundland Corp., is a mixture of British and Canadian capital, headed by N. M. Rothschilds & Sons Ltd., and boasting some of the top names of British and Canadian finance and industry.

· Influences-Much of this organization you can credit to Smallwood salesmanship. But there are two essentially outside influences that have helped. Straddling the Labrador-Quebec border near Knob Lake is the sweeping. quarter-billion-dollar project of the Iron Ore Co. of Canada, now nearing completion (BW-Jul.18'53,p82). The bold venture has drawn world attention to the area, has encouraged dozens of geological parties to go scurrying into

There's the military, too; three U.S. air bases in Newfoundland, a major industry there since the war, are in turn helping the fledgling "Smallwood industries." Last year the North East Air Command at St. John's spent nearly \$24-million.

the Labrador hinterland.

• Inventory-These represent selling points, to be sure. But Smallwood needed a lot more. He discovered early in the game that everyone wanted more information on Newfoundland-Labrador, and such information was unavailable. So he tossed a million dollars into the pot to hire top-notch consulting and survey firms, launched the largest in-ventory program that Newfoundland, and most of Canada, had ever seen.

• Impatient-But Smallwood couldn't wait for surveys to be finished; he went ahead with his scheme to develop new manufacturing. Investor reaction, however, was lukewarm-often positively frosty. Finally, Smallwood and Valdmanis decided to dip into the treasury and built three small "sample industries"-a cement plant, a gypsum mill, a birch products plant.

With these producing, Smallwood went selling, pointing with pride at "what could be done in Newfound-land." That didn't sell Canadians and Americans, but it did interest some European businessmen, anxious to invest in the New World.

• Dollar Bait-The catch was that they didn't have the dollars to set up shop in the dollar area. Smallwood obliged. If a European businessman could prove his idea reasonably sound, the provincial treasury would loan him up to 50% of the plant cost. While Smallwood insists he doesn't like to have the government in business, "if that is the only way to get them, O.K.'

The bait brought nine new outfits to Newfoundland, and some of them are already producing. The cost to the province has been \$9-million in loans. But the province realized \$4-million last year when it sold the Smallwood cement plant to private interests.

· Opponents-It was these outside plants that stirred up the most opposition to Smallwood's golden eggs program. The Conservative party opposition declared that the plants would fail; besides, Smallwood's economic unorthodoxy was squandering Newfoundland money on foreigners. Some mainland Canadian firms feared that Newfoundland's newcomers would compete in their bailiwick-and they, too, denounced Smallwood.

· Outlook-Today, most of the opposition has died down, and Newfoundlanders are willing to wait and see what happens. You can say this, however, tentatively: Those plants using local raw materials (the cement plant, for instance) have a fine chance of success, according to the on-the-spot experts. Those using imported raw materials (the machinery plant) will have a harder time, especially when they try to re-export to mainland Canada.

With the new industries getting

organized, the Smallwood-Valdmanis

team began junketing again, armed with the new natural resources surveys. This time there was interest right off the bat. • Development-The first important deal came with the formation of the Newfoundland & Labrador Corp., combining provincial government money with several U.S. and Canadian investment houses (Harriman Ripley & Co., Montreal's Wood, Gundy & Co. Ltd., are two). With 19-million acres of mineral and timber rights, the corporation is busy with an extensive ex-ploration program; some 14 geological parties have been in the field this summer and fall, and two weeks ago drilling teams went out to prove some highgrade wash iron findings. Other finds

In addition, the corporation has granted concessions to several outsiders -the American Zinc, Lead & Smelting Co., and Newmont Mining Corp. It's rumored others, Reynolds Metals Co and Texas Gulf Sulphur Co. among them, have expressed interest.

include titanium traces, promisfing zinc-

lead areas, and fluorspar.

The corporation is pushing forest development, too, and parties in Labrador hope to set up a logging operation. working up to 100,000 cords yearly. They're also thinking of a pulp mill in northern Labrador. It would complement two, big, expanding paper and pulp mills in Newfoundland properthe Bowater mill (one of the largest in the world) at Corner Brook and the Anglo-Newfoundland Development Co. mill at Grand Falls, in the center of Newfoundland.

· Branching Out-Other, already-oper-

ating industries in Newfoundland are expanding, too. Dominion Wabana Ore Ltd., a subsidiary of the big Dominion Steel & Coal Corp., has just wound up a \$10-million expansion of its iron operations on the east coast of Newfoundland. In central Newfoundland, an affiliate of American Smelting & Refining Co. has opened up new leading deposits. And the St. Lawrence Corp. of Newfoundland, U. S.-owned, is pushing fluorspar production for the Washington stockpile.

• Best Break—Early this year, Newfoundland logged the biggest natural resource development deal yet. Joey Smallwood went to London to interest British capital, which has been notoriously slow about investing in Canadian resources (BW—May16'53,p98). The upshot was what Smallwood calls "the biggest real estate deal on this continent in this century—the best break we've

had so far."

A private corporation, British Newfoundland Corp., was formed by British and Canadian businessmen. Capitalized at \$10-million, it was given huge concessions—896,000 acres of timber rights, known now to contain 12-million cords of virgin stands, 38-million acres of mineral rights, and vast water power rights. In return the company has agreed to spend at least \$1.3-million in exploration and development in the next five years.

Smallwood says, with a satisfied smile, that "development is certain." At least there are no fly-by-nights in the syndicate; the roster reads like a Who's Who of British industry and finance (Imperial Chemicals Industries, Prudential Assurance Co., Morgan Grenfell, Bowater, English Electric, among others). And large-scale explora-

tion begins next year.

• Final Task—The arrival of British Newfoundland Corp, has brought Smallwood full circle. He feels new development is in safe hands. One task remains—to bring Newfoundland's

oldest industry up to date.

A joint federal-provincial fisheries commission has outlined a modernization scheme for Newfoundland, which supplies one-third of Canada's fisheries production. It calls for diversification into fish meals, oils, vitamins, other products, along with the staple salt cod and growing fresh-frozen production. The wave-tossed dories are to give way to diesel draggers, with all the latest fish-finding gear. A series of complete fishing ports are to be spotted around the coast—and plans for the first one are going ahead this week.

"We'll have to spend millions of dollars to do it," says Joey Smallwood, "but in 10 years you'll never recognize the fisheries." A lot of people are wondering whether they'll recognize

Newfoundland, either.



On processing — inspecting — packing lines with roller and belt conveyors

• Your needs in conveyors—ranging from power and gravity conveyors, roller, belt, slat, chain, pushbar, sectional—to portable, self-contained units—spiral chutes—pneumatic tube systems—can be best met at Standard with an experience record of more than 45 years at your service. Write—address Dept. BW-1053.



In storage — shipping receiving depts, with a HANDIBELT

• Conveys horizontally or at any decline and incline angle within its range. Easy to wheel about or adjust—fits in crowded aisles, cars, freight elevators. Handles commodities up to 135 lbs. Can be placed in series to form a complete conveyor line. Available in 3 sizes and belt widths. Write for Bulletin No. 63-D—address Dept. BW-1053.

For interdepartment communications and dispatch . . . pneumatic tube systems



• Provide swift, sure, safe transportation of messages, documents, blueprints, samples, small parts, money: cylindrical or oval tubes 1½ inch upward with dispatching and receiving terminals for complete systems to meet your needs. Write for special Bulletin SPT11 — address Dept. BW-1053

STANDARD CONVEYOR COMPANY

General Offices: North St. Paul 9, Minnesota Sales and Service in Principal Cities Write Dept. BW-1053, for Standard's general catalog — tell us what you want to convey.



ROLLER • BELT • SLAT • CHAIN • WHEEL PUSH-BAR • SECTIONAL

PORTABLE CONVEYOR UNITS: NANDIBELT . HANDIPILER

GRAVITY & POWER INCLINEBELT - LEVEL BELT - EXTENDOVEYOR
UTILITY BELT-VEYOR - HANDI-DRIVE
CONVEYORS VERTICAL LIFTS - PREUMATIC TUBE SYSTEMS

PRODUCT IDEAS TO WORK

-for industry and agriculture

FMC's qualified organization is constantly translating new product ideas into commercial equipment for industry and agriculture.

If you have a new development or product idea that might find application in one of the following fields — agriculture, food preparation and processing, packaging, automotive servicing, power gardening, and pumping equipment — we are interested.

Unpatented ideas must be submitted on our disclosure agreement form, available on request. We are not responsible for unsolicited material.

For full information on how FMC successfully puts ideas to work and how you may submit your own new development or product ideas for consideration, write for special brochure B-1152.



FOOD MACHINERY AND CHEMICAL CORPORATION

Organization Planning Dept.
P. O. Box 760
San Jose 6, California

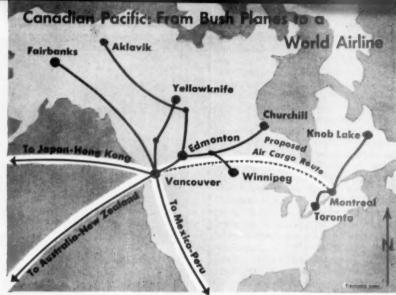


Protect Your Plant with Anchor Fence

Anchor Fence gives your premises positive, dependable protection all day and night, year after year. Thieves, agitators, vandals are kept securely out; valuable property and supplies can be stored out-of-doors. Deep-rooted anchors hold the fence erect under all conditions, and combined with other exclusive Anchor features assure you of extra years of dependable service.

SIND FOR FRII Industrial Fence Catalog. Write to: ANCHOR POST PRODUCTS INC., Industrial Fence Division, Department 6970, Baltimore 24, Maryland.





THESE LINES constitute a new international air empire, Canada's second largest, for

Airline Puts on Muscle

Grant W. G. McConachie, president of Canadian Pacific Airlines, is a man who likes to have irons in the fire. This week, the irons were glowing brightly as McConachie prepared to:

• Open the first through air service between South America and the Far East next weekend. CPA's new DC-6Bs will fly between Lima, Mexico City, Vancouver, Tokyo, and Hong Kong in 44 hours' flying time.

• Decide, along with Canadian Pacific's board of directors, whether to take up an option for three de Havilland Comet II jetliners. If the decision is to buy, CPA will be among the first to fly jets across the Pacific.

• Appear Oct. 30 before an unprecedented private session of the Canadian cabinet to urge acceptance of CPA's bid for a cross-Canada all-cargo service. It's the climax of a long-standing tussle between privately owned CPA and the government-owned "chosen instrument," Trans-Canada Air Lines, over a route reserved to TCA on a monopoly basis.

A government O.K., if it comes, could mean a turning point for Canadian aviation. Ottawa has felt in the past that it must prohibit route competition, not only with the government's carrier, but between private lines as well, if Canadian aviation is to enjoy orderly growth. Now, however, it's clear that the government is having second thoughts—and it may be that before yearend there will be the beginnings of competition on a regional basis.

Even if McConachie's bid for the air cargo route is turned down, CPA won't go into a corner and sulk. It has never found living with a government airline particularly troublesome—CPA has in fact done a good job in pioneering new routes, and even in breaking through the government monopoly. What 10 years ago was an odd, vintage assortment of bush planes is now Canada's second-largest air carrier.

• Bush Pilots—Many of the men who are pioneering CPA's new Latin America to Asia routes are the same men who opened up the Canadian north in the 1920s; they were the bush pilots whose single-engine float-planes took the curse of isolation off Canada's Arctic frontiers. And though the bush pilots were famed for their derring-do, they also had business heads among them. As the mining towns that they served grew in size and number, some bush pilots found themselves running small airlines.

For some time, the giant Canadian Pacific Railway had been eying this situation. In 1933 CPR bought a piece of the largest of the bush lines. Then it sat tight and watched Canada's dynamic minister of trade and commerce, C. D. Howe, set up Trans-Canada Air Lines as a costly but necessary cross-continent public utility.

• Moving In—It wasn't until 1942 that CPR judged the time as ripe. So CPR wangled the right to buy up 10 bush lines, 77 aircraft of every size and age. Along with this dubious heritage of machines, CPR got their erstwhile owners, the dauntless bush pilots. Among them was Grant McConachie, known as the "human airplane," who it was said could do everything with a plane but dismantle it and put it together again in flight.



CPA's Grant McConachie.

McConachie wound up in charge of the new Canadian Pacific Airlines' western operations. He lopped off overlapping schedules, sold most of the small, short-range aircraft, cut freight charges. His planes shuttled everything from milk to machinery right to the rim of the Arctic Ocean; they helped build the Alaska Highway and the uranium plants at Great Bear Lake.

CPA began to look longingly at Trans-Canada's big-city, east-west runs. But Prime Minister Mackenzie King, in setting up the Air Transport Board in 1944, announced firmly that competition between air services over the same route would not be permitted. In case CPA had more ambitions, King added that Trans-Canada Air Lines was, and would be, the sole Canadian agency allowed to fly international routes.

• In the Red—So CPA stuck to the north—and continued to lose money. In 1947, with McConachie as president, CPA dropped half a million dollars. In 1948, he pared costs so that the deficit was only \$200,000.

deficit was only \$200,000.

• The Orient—Canadian Pacific Railway had by this time dropped \$11-million into CPA; but it was persuaded to put up a few more million to help McConachie spread his wings abroad. He worked up a scheme to fly between Vancouver and the Far East and laid it before the Air Transport Board.

The board, naturally, looked to Trans-Canada, the government's "chosen instrument." TCA wanted no part of the Pacific business. Pointing out that older and bigger U.S. airlines were still losing money in the Pacific, everyone bet that CPA would lose its shirt. Nonetheless, Ottawa opened a loophole in its monopoly policy and gave McConachie the franchise.

In July, 1949, CPA made its first Vancouver-Honolulu-Australia-New Zealand flight; two months later followed with its first Vancouver-Tokyo-Shanghai-Hong Kong flight. In two months, CPA had added 15,000 route miles to its 10,000 miles of domestic service.

That year, as in the following year, the Pacific routes lost money for CPA. But McConachie shrugged, and placed a \$2.5-million order for two Comet I jets. He expected to lose money—the price of breaking Trans-Canada's monopoly would be high. But then Korea intervened, and CPA hit the jackpot.

• Korea Boom—In the first six months of 1950, the airline lost \$640,000; in the first half of 1951 it cleared \$609,000—thanks in large part to the tremendous demands of the Korea airlift.

Now, CPA is pretty firmly entrenched in the Pacific, and McConachie is nursing schemes to push the routes on as far as India. This summer was to have seen the first jets over the Pacific with the delivery of the two Comet Is. But one cracked up on a delivery flight, and the second Comet has been sold. This month, CPA will probably take up its option on three Comet IIs and earmark them for the Pacific service.

Meanwhile, CPA has set up its Latin American service, with its two DC-6Bs (two more are on order). Originally, McConachie hoped to fly from Rio de Janeiro to Vancouver, but rights in Brazil have been blocked and CPA is flying from Lima, Peru, and Mexico. However, McConachie hopes some day to push through to Brazil.

• Expansion—One thing is certain in these plans: Canada aims to play a larger role in world air transport. Trans-Canada is increasing its European services, and is planning a Montreal-Mexico City service.

But while CPA and TCA have apparently settled on separate spheres of influence abroad, they are battling at home. Last year, McConachie asked for a government O.K. for an overnight all-cargo route between Vancouver and Montreal-Toronto—a direct challenge to the policy of saving the cast-west traffic for Trans-Canada.

• Monopoly—It's likely that the government isn't ready to give up TCA's cross-Canada monopoly just vet. For one thing, the airline is getting ready now to increase its own limited cargo service.

At issue is not only TCA's crosscountry monopoly but also the protected position of private carriers on regional routes. CPA's challenge to TCA is paralleled by a challenge to CPA on its Edmonton-Yellowknife flights. Associated Airways wants to start an all-freight service on that northern route, heretofore a CPA monopoly.



You can afford



Ultrasonic REFLECTOSCOPE INSPECTION

Dependable, non-destructive testing is often vitally important even though the need may occur at infrequent intervals or involve relatively few piaces. SPERRY INSPECTION SERVICE makes Ultrasonic Testing economically available under these conditions. You can hire a Sperry REFLECTOSCOPE and the services of an experienced inspection engineer whenever you need them . . , for any length of time from four hours up.

You'll find this service ideal for periodic machinery inspections, testing shipments of raw materials, testing new or pilot-model products, periodic quality checks and countless other applications to eliminate on-the-job failure or to prove and improve product quality.

Almost any material can be tested; hidden defects are quickly and dependably located in up to 30 feet and over of solid steel. Write new for complete information.

Ultras	
	Sperry
	Inspection
1910	PRODUCTS, INC. SHELTER ROCK ROAD BURY, CONNECTICUT
☐ Have a	ut me on your mailing list strial Application Reports, SPERRY Representative drop in the area.
MATERIAL TO	BE TESTED
NAME	
TITLE	
COMPANY	
CO. ADDRESS	
CITY	
	STATE

Strikes Are on the Rise

Thousands walk out in Canada, as business hesitates to grant wage boosts and benefits at a time when the economic future is uncertain.

After years of relative calm, and round after round of wage increases, management and labor have begun bumping heads in Canada. The result is the largest strike wave since 1946.

Last week, between 18,000 and 20,000 Canadians were idle—and several thousand more may walk out soon. Here are some of the trouble spots:

• Some 7,000 miners are out at northern Ontario and Quebec gold and base metal mines. Some have been striking since mid-July. With strong backing from Canada's branch of the United Steelworkers of America they are dug in for a long fight.

• The Scafarer's International Union called 1,000 men out early this month. Gloomy shipowners declare the strike may bring the "virtual end of the Canadian deep-sea fleet"; they warn that since the war, 270 ships have been transferred from Canadian registry because of high costs.

 At Winnipeg, 700 workers at the Dominion Bridge Co., Ltd., struck week before last. More may follow at other company plants.

Wages, working conditions, and union security are responsible for much of the present dickering. Workers want higher pay, pointing to a steady upward creep of living costs. Rents, for example, are jumping: in September, Ontario became the last province to wipe out rent ceilings.

• Five-day Week-Recently, the federal government announced that its 130,000 civil servants would go on a five-day work week. Now that cry is being taken up across the country. Union leaders are insisting that cooperation profits are continuing high, and that there's room for a bigger slice for the workers.

Most union leaders, that is. In September, the 150,000 nonoperating railway employees surprised all of Canada by announcing that they would pass up a wage increase in 1954—for the first time in 20 years. Last year, they won big pay boosts—they're almost on the top of the Canadian wage-rate heap—and say they'll sit this one out.

Employers are hoping against hope that the railway lead will be followed by unions not yet heard from. And they're resisting wage demands more tenaciously. Behind that attitude, apparently, lies uncertainty as to how long Canada is going to enjoy the postwar bonanza.

• Wait and See-Businessmen hesitate to tie themselves into new contracts until they get a clearer glimpse of the future. As in the U.S., there's mounting speculation about a possible recession, or at least some sort of perceptible slowdown in Canada's economic advance.

This certainly has contributed to business' hesitancy about wage hikes. On the other hand, signs in Canada seem to point to a strong fourth quarter and a running start for 1954. Businessmen seem a bit more optimistic than their U.S. colleagues. What they fear first and foremost, of course, is a drop in business activity in the U.S. that would reflect itself in Canada.

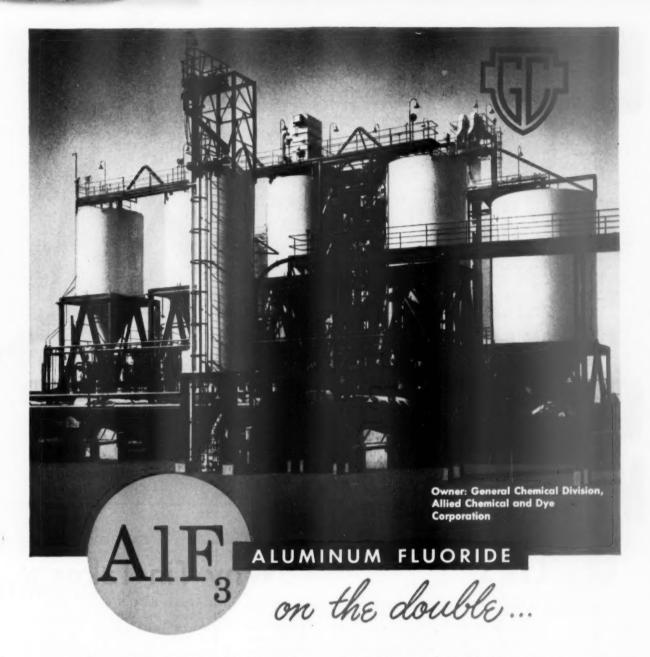
CANADA BRIEFS

Rising consumer credit is worrying some bankers and businessmen; A. C. Ashforth, general manager of The Dominion Bank, says it "increases Canada's vulnerability to a collapse in consumer spending." Total outstanding now is over \$1.7-billion, up 50% in a year's time. . . Meanwhile, retail sales are lagging a bit after chalking up an all-time record in the second quarter—\$3.1-billion, a 5% increase over 1952.

Freight rates will be juggled next month. As of Nov. 15, basic rates in the West will be shaved 5%. But they'll increase by 10% in Ontario and Quebec.

Drive-in theaters are multiplying, despite cold winters and second-run films. There are over 100 drive-ins now, and 1952 box office receipts, just reported by the Dominion Bureau of Statistics, jumped 32%. Standard movie houses, with their best year to date, showed only a 9% gain.

Chartered banks, long barred from mortgage lending by the Canadian Bank Act, will be allowed to enter the residential mortgage field next winter, provided Parliament approves. The move, revolutionary for Canadian finance, is designed to "increase and broaden the supply of mortgage money for new housing," according to Prime Minister St. Laurent.



Fast engineering and construction schedules plus close cooperation from the client enabled this California plant to meet a pressing demand for aluminum fluoride.

By dividing work closely between coordinated project teams, Bechtel designs and builds rapidly—an important advantage to owners seeking early production from a new plant.

BECHTEL CORPORATION

Los Angeles . SAN FRANCISCO . New York



BUILDERS FOR INDUSTRY



tion of all Peerless Series 6600 filing cabinets in-

corporates many exclusive features which assure you of rugged and dependable performance.

able performance.

Heavy, cold rolled steel is used throughout the entire cabinet... all parts are arc welded or otherwise permanently secured without bolts, screws or other fastening devices which may work loose... metal channel uprights are welded to each side to form single solid units which cannot sag or sway, even under severe strain.

severe strain.

Consult your phone book for name of the Peerless dealer near you. Ask him to show you first hand why these Series 6600 units are indeed Grade A quality, built for long, hard service.

"PEERLESS"-Makers of topquality motal office equip-ment for nearly 25 years.



INDUSTRIAL

TRAILERS

Standard and Special Types



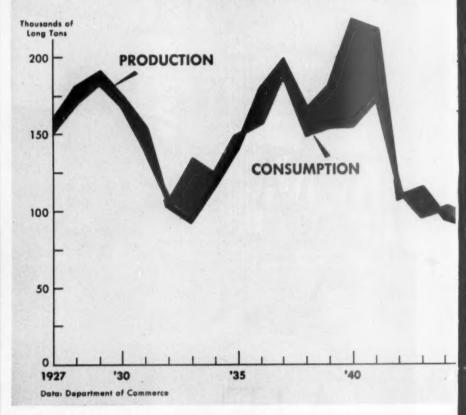
As the world's largest producer of industrial trailers MERCURY is equipped to meet your specific requirements. Capacities from 2000 lbs. in Standard Type A-310 Trailers to 60,000 lbs. in heavy duty models. Request Bulletins A-100 and A-999.

MERCURY MANUFACTURING COMPANY

4146 S. Halstead St., Chicago 9, Illinois

Tin: Surplus Problems Again?

World Production and Consumption



Why Tin Takes a

In war, there's nowhere near enough tin in the world. But in peacetime, there's too much. This combination of extremes has kept the world tin industry in a ferment for decades. Right now, it's posing some thorny problems both for the industry and for the U.S. government as it tries to hammer out a tin policy.

Tin prices went into a tailspin at the end of March, 1953. Since then, they've dropped about a third-some 40¢ a lb.-and most observers feel they'll sink further before they level off. The trouble is easy to diagnose: A bad case of oversupply has finally caught up with the industry.

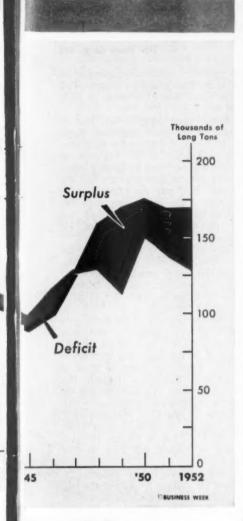
• Thin Ice-World production has been way above commercial consumption since mid-1948 (chart). But the surplus didn't hang heavy on the market; during most of that time, all the extra tin that was produced found a

ready home in the U.S. strategic stockpile. Supply and demand stayed in balance, and prices held up.

This couldn't go on forever, though, It came to an end in the middle of March with an announcement by the U.S. government that, on the basis of already existing contracts, the stockpile objective would be filled within a year. That, coupled with the Communist peace overtures around the end of March, lowered the boom on the tin industry

• Built-In Troubles-Overproduction in relation to current needs is nothing new to the industry; it's been the rule, with very few exceptions, for each year since the 1920s (chart). So in peacetime, there's more than enough tin available.

The trouble is that, from the strategic point of view, most of it is in the wrong places. Before World War



Tumble

II, about 80% of the U.S. supply of tin came from Southeast Asia. It was lost to Japan a short time after the war started; there's a good chance that it would be just as vulnerable in case of war with Russia. So in war, tin becomes one of the scarcest of all metals for the U.S. Since 1939, stockpiling under the threat of war has played an extremely important part in the industry demand picture. You can see this complex of factors in the response of tin prices to every shift in the world situation.

Price of Progress—Because it was so searce, use of tin was sharply restricted during World War II. Conservation was the rule, and every technological change that would save even bits of tin was encouraged. This heritage from wartine is compounding the industry's oversupply problems now. Tin has simply not participated in the huge war



THE NATIONAL CITY ORGANIZATION has helped hundreds of corporations solve this problem successfully.

Our practical experience in this field may be helpful to you in choosing the plan... or the combination of plans... that is best suited to the particular conditions existing in your company. Write or telephone our PENSION TRUST DIVISION, 55 Wall Street, New York.

We act as trustee under employee-benefit plans and as agent for individual trustees

CITY BANK FARMERS TRUST COMPANY

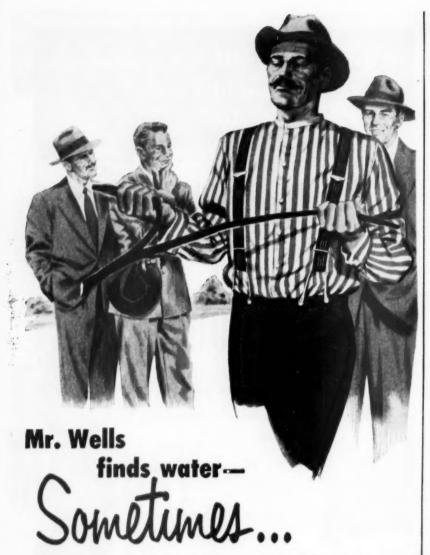
Chartered 1822

HEAD OFFICE: 22 WILLIAM STREET, NEW YORK

Affiliate of

THE NATIONAL CITY BANK OF NEW YORK

Latablashed 1812



... but industry can't count on a divining rod to find dependable sources of cooling water for processing plants. In fact, cooling is such a vital link in production that dependence can't be placed on wells and rivers that come and go with Nature's whims—droughts, floods and freezes.

You can, however, always count on a Marley cooling tower to save more than 95% of the water you are now using. By recirculation, a Marley

cooling tower makes each gallon of water do its job over and over again. In effect, it pays your water bill 29 days each month.

So if a positive water supply is one of your problems, see the nearest Marley Application Engineer. He's "America's Number One Water Conservationist," an engineering specialist who will gladly share his knowledge for your benefit.

ENGINEERING SALES OFFICES IN 50 CITIES

The Marley Company

Kansas City, Mo.

"... in 1941, industry hit on the electrolytic method of making tinplate ..."

TIN starts on p. 148

and postwar industrial expansion in the U.S. This country's consumption of the metal was 11% lower in 1952 than in 1939.

Technological progress has had an impact on the most important single use of tin—as a coating for thin steel to form tinplate. Before the war, all tinplate was produced by dipping sheets of steel into molten tin—the hot dip method. But you can't control the thickness of the tin coating with this method—and the then standard tinplate had much more tin than was

needed for most uses.

Then in 1941, industry hit on the electrolytic method of making tinplate. Under this setup, much thinner coats of tin are possible, and the thickness of the coat can be controlled to tailor the tinplate to its final use. War and carly postwar scarcity of the metal gave a tremendous impetus to this new method; by 1952, 68% of all tinplate produced in the U.S. was electrolytic tinplate. From the point of view of conservation, this was a triumph. But you can see what this development has done to tin demand by comparing two statistics: (1) The U.S. produced 62% more tinplate in 1952 than in 1939, and (2) U.S. use of tin for the production of tinplate fell 25% in that period.

• Losing Ground—The electrolytic method for making tinplate is the biggest blow to commercial demand for tin, but it is by no means the only one. U.S. use of tin in solder is down 9% since 1939; in babbitt metal, it's down 20%. Tin's market in collapsible tubes and foil, once a major one, is almost completely lost to aluminum

and lead.

The only major market where tin has made any headway since 1939 is in bronze and brass. Here consumption of tin is up a substantial 171%, making this the second-largest market for the metal now.

• Plotting Production—No industry likes to cut back production in line with consumption. But it's particularly difficult in the case of tin. Most of the tin mined in the world comes from economically underdeveloped areas. In the majority of these, there are few alternate sources of employment. And, in most, governments are heavily dependent on tin for revenues. So production tends to stay up even though prices fall.

Various international control schemes were tried, prewar, as a solution to the

problem. In 1931, the International Tin Committee was formed by the governments of the major tin-producing countries. At the time, stocks of tin were high and prices were declining. The committee instituted a system of production quotas; for several years production was kept below consumption and stocks dried up (chart, page 148). Several buffer stock schemes—with the committee buying tin when prices declined and selling when they rose—were also tried, with varying degrees of success.

In 1946, under general agreement that a surplus of tin would eventually develop, the International Tin Study Group was formed. Membership includes both producing and consuming countries (prewar international tin groups were made up only of producers). The group has been meeting periodically since then, and periodically it forecasts a burdensome surplus of

In October, 1950, at its suggestion, a United Nations Tin Commodity Conference was called to discuss a control agreement. All the major producing countries and many of the consuming countries supported the idea. But the U.S., the leading consumer, thought an agreement would be premature (this was a few months after Korea) and nothing much was accomplished.

Pressure for an agreement has been building up again since prices started dropping this year, but the U.S. so far has remained cool. The entire-field of this country's foreign economic policy -including the question of international commodity agreements-is being studied now by a Presidential commission. So, although the U.S. has agreed to reconvening the U. N. Tin Commodity Conference in November, it did so with the advance warning that it cannot be committed to any decisions that may be reached. Even so, the market steadied noticeably on the news that the United States had agreed to the con-

• Smelter Question—The Administration faces another big problem with respect to tin. It has to decide what to do with the government-owned tin smelter in Texas City, Tex.

Tin Processing Corp. built the smelter for the Reconstruction Finance Corp. in 1941, and has operated it continuously since April, 1942. The smelter is the largest in the world, and the only major one in the western hemisphere. It supplied the lion's share of U.S. requirements, military and civilian, during the war; in 1952, even with production at a postwar low, it produced the equivalent of half the total U.S. consumption of primary tin.

However, it is extremely expensive production. From the first, the major part of the ore it used came from Bolivia. Bolivian ore is of a much lower grade than eastern hemisphere ores; it is difficult and expensive to smelt and refine. In the early 1940s, the U.S. was all too happy to have a source of ore, even low-grade, that was relatively close and dependable. In fact, the Texas City smelter was specifically designed to handle large quantities of low-grade, as well as high-grade ores.

as well as high-grade ores.

Now, the U.S. no longer needs the Texas City production. Since August, 1952, private importers have met industry needs. With the stockpile objective due to be filled by March, 1954, the problem is whether to keep the smelter running. You can see that won't be easy to decide from a rundown of the factors involved.

• Ramifications—If the smelter closes down, it might well take close to a year to reactivate it. A smelter in this part of the world proved invaluable in the last war; it's good insurance against another emergency.

Perhaps more important, the Bolivian government depends on tin for some 80% of its revenues. It needs collars urgently to buy food. With tin in oversupply (and without an international agreement that would cut production proportionately in all countries), Bolivian ore would be the first to lose out, simply because it's so expensive to work. Without Texas City there isn't enough low-grade smelting capacity in the world to take care of the Bolivian output.

Those in favor of keeping the Texas City smelter open point out that the U.S. is spending billions of dollars in economic aid all over the globe. In this case it's at least getting tin for its money. If buying Bolivian ore will keep the country from going Communist, they say, then by all means let's buy it.

• Short Run and Long Run—They won their point, at least partially, in midsummer, when the U.S. agreed to buy 10,000 tons of ore from Bolivia. The U.S. said that it didn't need the tin, but that it was buying to help Bolivia. At the same time it offered Bolivia more aid to develop its agriculture and make it less dependent on tin. The tin contract runs through March, 1954.

Any long-term decision to keep the smelter running would have to be accompanied by a decision on what to do with the tin. The RFC, or whatever agency takes over the smelter when the RFC goes out of business next June, can't just keep on accumulating tin. The U.S. stockpile is no longer a customer (although, of course, stockpile objectives could change). And it's not hard to imagine what would happen to the price of tin if the RFC should start to sell its stocks on the open market.

YOUR OWN BUILDING COULD BE "FALLING APART"

Only close inspection will show whether driving penetrating rain and severe weather have been corroding metal, disintegrating brick and mortar, destroying plaster and interior decoration.

Check up for yourself or let our trained field engineers check up for you. 25 critical (some hidden) places must be closely inspected.

50,000,000 square feet of structural surface have been protected by Horn materials and methods. Our "Know how" can easily save you thousands of dollars. And remember you can handle remedial water-proofing work as maintenance expense yet increase your actual building valuation.



- Technical surveys
 Experienced crews
- HORN materials
- Guaranteed results
 National operations
- Nationally known references.





Typical building

HEADQUARTERS FOR BUILDING RESTORATION REMEDIAL WATERPROOFING

FREE!

Get the Horn "Check-Up" Chart for the use of Building Owners, Building Managers, Architects, Engineers, Supts. of Maintenance.

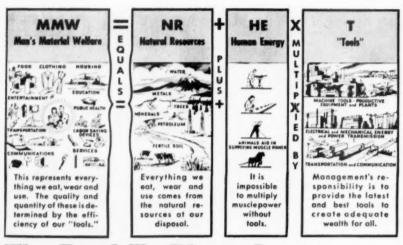
CONTRACTING DIVISION

BW53

A. C. HORN CORPORATION, Long Island City 1, H. Y.

- Please send me free the Horn "Check-Up" Chart to help locate damaged structural areas in our buildings.
- Send your field engineer to make a Horn inspection.

Name				
Address				StateCORPORATION.
City				State
DIVISION	OF	SUN	CHEMICAL	CORPORATION.



The Road To Plenty Is Paved With Tools

It is human nature to want more comfort, more leisure, more enjoyment, more years of life. This requires a plenteous supply of food, shelter, clothing, medical facilities and luxuries.

The U. S. has proved that this road to plenty is paved with "tools". We have only 7% of the world's people but already produce and use one-third of the world's goods and services. The only way this could be accomplished was to use more mechanical energy, more and better "tools", per capita than the rest of the world. The chart above portrays the importance of the "tools" in the material welfare equation.

This greater use of "tools" is the end result of our free enterprise system. No other system ever made it possible . . . and every other conceivable "system" or "ism" has been tried at one time or another in history.

It government will not tax away a fair return on the "tool" owner's investment, if labor will not block everincreasing use of more and better tools and if management, under these conditions, will continuously replace obsolete and worn out tools, there is no limit to the material welfare the people of this country can enjoy.

One of the most widely used types of machine tools is the contour-cutting band machine.

- It cuts everything including metal, wood, plastic, glass, stone, rubber, cloth, paper, asbestos.
 - It cuts thick or thin material.
 - It cuts to any shape, or straight.
 - It cuts direct to a layout line.
- It cuts faster than other machining methods.
- *Source: Industrial Relations Center, University of Chicago

- It utilizes 18 different types of cutting bands having saw teeth, knife edges, diamond edges, files and other cutting surfaces.
- It is the most versatile machine tool in the world.
- It is an original development of The DoALL Company.

The DoALL Company, Des Plaines, Illinois, will demonstrate a band machine in any plant on any job, free of charge. DoALL also sells, through a network of 38 Sales-Service Stores, precision surface grinders, gage blocks, cutting tools and hundreds of metal-

working necessities.



TYPICAL DoALL Band Machine in use for cutting structural steel.

DOALL

FREE ON REQUEST for your bulletin boards: "Why Living Improves in America", a 17" x 22" wall chart, without advertising matter.

THE DoALL COMPANY
254 N. Laurel Ave., Des Plaines, III.

Cost of Coffee ...

. . . boosted by July frost in Brazil, may go down again because of changes in export policy.

There isn't an awful lot of coffee in Brazil. So when a frost hit the major producing areas of Parana and Sao Paulo over the July 4 weekend, both spot and future prices for green coffee on the New York exchanges jumped.

Original estimates of the damage to the 1954-55 crop (the one most affected by the frost) have been watered down considerably since July, and prices, too, have come down somewhat. But a fairly substantial—and much needed—increase in production had been expected from this crop. The frost means that instead of yielding more coffee, Brazil's total crop will yield an estimated 1-million-1.5-million bags less.

 Overconsumption—Since the end of World War II, world consumption of coffee has been ahead of production with the difference coming out of stocks. Brazil's carryover (from one crop year to the next) has dropped steadily from 15-million bags in 1947 to 3-million bags in 1952 and 1953. In such a tight situation, the market reacts immediately to news of every change in the long-term supply.

Since July, first wholesale, and then retail, prices for roasted coffee have gone up some 3¢ a lb. If green coffee prices hold at their current level, more increases are sure to come.

• Policy Problems—But prices may not hold at their current level. The market, right now, is reacting to still another kind of news—a change in Brazil's coffee export policy. This is the second such change in Brazilian policy within the

Before last August, coffee exporters had to convert all their dollars to cruzeiros at the official rate of 18.36 cruzeiros to the dollar-which gave them roughly half as many cruzeiros as they could have gotten at the free rate. In August, Brazil announced a new policy fixing minimum export prices for coffee. Exporters had to convert their dollars at these minimum export prices at the official rate, but anything they got over the minimum could be converted at the free rate. This meant that exporters could get more cruzeiros for their dollars-so they could, if they wanted to, sell the coffee for fewer

• Reaction—Three things happened: The cruzeiro price for coffee in Brazil went up somewhat (most agree this was the prime purpose of the change in policy), the dollar price to the U.S.



A thread of adventure runs through our production lines, our research department, our engineering and office staff.

For generations we've taken a proprietary interest in transportation . . . an interest that has revolutionized railroad car loading. saving railroads and shippers millions of dollars . . . an interest that has solved truck-loading and truck and bus heating and ventilating problems and provided improved and economical storage battery separators . . . an interest that turned to making aircraft parts and cargo tie-down equipment, shelter heaters. stampings and rocket motor bodies and other devices for the military ... an interest that has helped many companies with product development and custom manufacturing problems.

We not only take pride in the quality products we make, but we take an interest in helping them solve customers' problems. We'd like to talk about yours. Evans Products Company, Dept. B-10, Plymouth, Michigan. Plants at Plymouth, Mich.; Coos Bay and Roseburg, Ore.; Vancouver, B.C.

EVANS

PRODUCTS FOR INDUSTRY Freight Damage-Prevention Equipment Automotive Heaters . Parts & Stampings Douglas Fir Plywood · Battery Separators Dimension Lumber & Wood Products.



Contractor Ups Output 3000%

American Crawlers lift a "forest" in minutes for Griffith and Dyal, Florida wood contractors! It used to take a whole crew 10 hours to load a flatcar with pulpwood logs. Now, American 375 Cranes do the job in 20 minutes—30 times faster than before!

Timber trucks carrying 23/4 cords of pulpwood each are emptied in two easy lifts by one American Crawler. A second American 375 swings a huge concrete block whose flat side bumps the logs into place on the car.

Loading an average of 125 flatcars a week, American Crawlers play a vital part in boosting volume for the nearby St. Regis Paper Company at Jacksonville.

The loading speed and power needed for this operation is typical of American Hoist equipment! Designed to speed work and cut costs, American products may be the answer to your production headaches. If your business is such that factual, on the job stories would be of interest to you, mail the coupon below and we will send you copies of the American Crosby Clipper regularly.



and DERRICK COMPANY

St. Paul 1, Minnes Yes, I'd like to get Also, send informat	the American CROSBY CLIPPER: ion on the following equipment: ks — Cranes — Portable Elevators	
Name	Title	
Firm		
Address		
City	Zone State	Send coupon today!

went down a little, and the free rate of exchange firmed for cruzeiros, as more dollars were turned in for exchange.

Coffee prices stabilized at a level high enough so that exporters' average return worked out to about 20.44 cru-

zeiros to the dollar.

Now Brazil has liberalized this policy. At midweek, the latest word was that coffee exporters will be getting 23.38 cruzeiros for each U.S. dollar. This will almost certainly mean a somewhat lower dollar price for coffee; one trade source estimates that, on the basis of this change, prices will be down 3¢ to 4¢ a lb. when the market finally settles.

COMMODITIES BRIEFS

West German purchase of 1,850,000 bu. of wheat from Turkey came as a sharp disappointment to American wheat exporters, who had expected to fill nearly all of West Germany's requirements. Reports that English millers have found Turkish wheat satisfactory for milling seem to put Turkey solidly in the picture as a competitor for the world wheat market.

Stocks of zinc on Sept. 30 stood at 141,494 tons, the highest in over six years. They were 87,160 tons at the beginning of this year. Zinc prices have been falling steadily since June, 1952; they have dropped almost 50% during the stretch. The industry mostly blames imports, sharply higher than last year, for the big stocks and low prices.

The Agriculture Dept., in its September report, predicted that 1953 crop output will be the third largest on record, exceeded only by 1948 and 1952. The corn crop is estimated at 3.2-billion bu.; some officials have said that a crop of more than 3-billion bu. of corn would mean marketing quotas next year.

National marketing quota of 10-million bales of cotton for next year—a 36% decline from the 15.6-million bales produced this year—was proclaimed by Secretary of Agriculture Ezra T. Benson. Farmers will vote Dec. 15 on whether to accept the quotas, and acreage allotments. Benson said the quotas "will mean a very severe adjustment, with a heavy impact on the economy of the Cotton Belt."

The supply picture for aluminum is easing rapidly, as production mounts. Independent fabricators will be able to get 101-million lb. of primary aluminum in the fourth quarter, as against 90-million lb. in the third.

Costs come down

Work with figures costs any business too much without the automatic thinking of the Friden Calculator. In calculations for payroll, invoicing, inventory, taxes, every figure chore... the fully automatic Friden performs more steps in figure-work without operator decisions than any other calculating machine ever developed. Automatic thinking ability inherent in Friden design saves expensive human time and makes this Calculator simple to use without special operator training. Be your business big or small, conventional or specialized, you'll be money ahead to figure on a Friden!

with Friden extra thinking



The Thinking Machine of American Business

YOU'VE NEVER SEEN A CALCULATOR DO WHAT THE FRIDEN CANI Call in the Friden Man near you and let him demonstrate some of the time-saving applications of Friden figure-thinking in your business... applications that can pay back the cost of this Calculator quickly. Friden sales, instruction and service available throughout the U.S. and the world. FRIDEN CALCULATING MACHINE CO., INC., San Leandro, California.

© Friden Calculating Machine Co., Inc.

Enter this Lyon Den with Confidence



LOCAL RUELL



Faster Road, Bigger Jam

SAN FRANCISCO—California's highway engineers drew a torrent of abuse early this month when a monumental traffic jam crowned the gala opening of the newest link in the Bayshore Freeway.

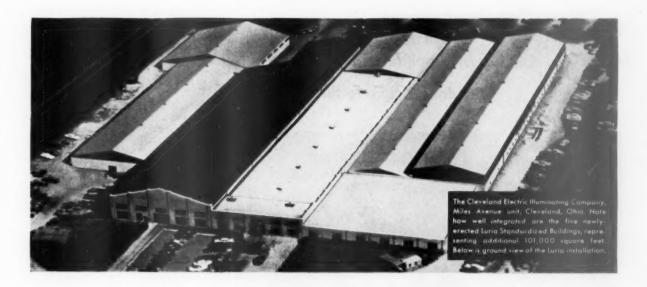
The freeway is a long-term project that eventually will give people who work in San Francisco high-speed access to a whole chain of "bedroom" towns in San Mateo and Santa Clara counties as far south as San Jose. The first section of it, from below South San Francisco to just inside city limits, was finished several years ago. The new two-mile, \$9-million link brings it almost into downtown San Francisco.

Within a couple of hours after the new link was opened, traffic, instead of flowing freely, had ground to a bumper-to-bumper halt along the whole two miles (picture, above). The trouble, it turned out, was that the new road had been opened before all the exits had been completed.

The red-faced engineers staged a quick recovery. Within 24 hours they had improvised enough temporary exits to drain off the heavy commuter traffic as fast as it flowed northward from peninsula suburbs.

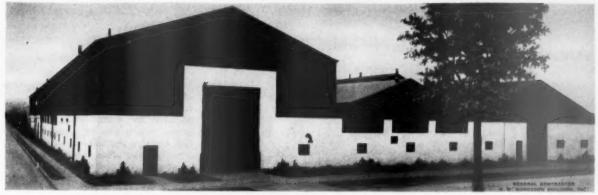
Happy Ending

COLUMBUS, O.-Two major construction projects that have been pending here are Scars, Roebuck & Co.'s new \$17-million retail store and regional mail-order plant, and the \$4-million Spring-Sandusky Traffic Interchange, part of the city's planned \$39-million expressway system (BW-Nov.1'52, p130). For a long while it appeared that the city couldn't have both—that



Another Industrial Leader chooses

LURIA Standardized Buildings



Luria puts the permanence and <u>flexibility</u> of CUSTOM-BUILT STRUCTURES into your expansion program...without sacrificing the advantages of STANDARDIZATION

Standardization provides the high speed, low cost answer to today's building problems, of course. But Luria standardization brings you complete freedom of design and architectural treatment, as well. There is practically no limit to the way Luria standardized units can be integrated with your present

structures... or "custom-designed" for your new projects! And every Luria installation is engineered to meet the most exacting building code requirements. To know more about these and the many other advantages of Luria Standardized Buildings, contact your Luria representative today. It pays.

LURIA ENGINEERING Company



How many tankfuls of gasoline

does it take to fill a stadium?



Proud dads, old alumni (not acting their age) and just plain football fans . . . they're all headed for the kickoffs these crisp fall days,

Thousands and thousands of gallons of gas are being pumped along such busy football routes as Detroit to Ann Arbor, Sacramento to Berkeley, Chicago to South Bend, New York to Cambridge. And it's the tank trucks that keep the pumps full . . . that make it possible for you and millions more to drive to the big game. Oil companies make special arrangements during the football season to supply their stations with extra fuel.

It's all part of the services performed by the tank truck industry which annually transports not only 33,000,000,000 gallons of petroleum but millions of gallons of other bulk liquids-everything from molasses to monofluorotrichloromethane.

Our great fleet of nearly 16,000 for-hire tank trucks is an important part of America's indispensable trucking industry which moves two-thirds of the nation's total commercial and agricultural tonnage.

If you've got it-a truck brought it!



American Trucking Industry American Trucking Associations, Washington 6, D.C.

it would have to choose between them. Last week city, county, and Sears officials finally got together; the city will

get both projects after all.

• Obstacle Course—Sears' site is at one corner of the proposed interchange; two legs of the expressway would go past the Scars buildings. Early this year Sears asked for access roads at grade level, and for traffic lights on the expressway to help traffic get to and from its plant. If it couldn't have these, it said, it wouldn't build the plant.

County planners balked. If traffic lights were installed, they said, it would no longer be an expressway-and that would invalidate the bonds already

issued for its construction.

A preliminary compromise was reached, and an engineering firm was hired to design cloverleaf entrances and exits, to smooth traffic flow to and from the plant without traffic lights. Only trouble with that was that these accessways will cost \$1.1-million extra. The whole thing almost fell apart again over the question of who would take care of that little item. Last week, after several months of bargaining, that hurdle, too, was cleared. The county will pay \$458,000 as its share of the costs, the state \$442,000, and Sears \$200,000.

Updates

OAK RIDGE, TENN.—Private ownership in this "Atomic City," formerly completely government-owned, is progressing by leaps and bounds. It wasn't until this past January that the Atomic Energy Commission cleared the way for the first privately owned homes in the city (BW-Jan.31'53,p126). Last week AEC gave the go-ahead for a \$3million business center to be built and operated by private enterprise. center, which has been under discussion for 3½ years, will include a theater, a bank, a post office, a full-scale department store, and some 35 smaller stores. Construction will start early next year.

SAVANNAH - When American Cvanamid Co. announced it would drill wells to get 6-million gal. of water a day for its proposed new titanium dioxide plant here, a good many residents objected strenuously (BW-Sep.5'53, p121). They said they used to have plenty of water, but that their table had been dropping steadily ever since 1936, when Union Bag & Paper Corp., and later other paper manufacturers, opened plants here. The City Council hired geologists to survey the situation; they reported that the Cvanamid plant would have very little effect on the water table. Next day-despite a strong letter of protest from Union Bag itself -the council gave Cyanamid the go-

PRESSURE PROCESSING . . . whoever uses it in their production is a customer or potential customer of H-P-M

AVIATION . . .

that vast, ever-expanding industry continually seeking new boundaries of speed, distance, altitude and payload to conquer . . is another field in which H-P-M All-Hydraulic Presses play an important role.

As a matter of fact, you'll find the biggest names* in the aircraft industry on H-P-M's customer list. And, the industry's confidence in H-P-M is reflected by the fact that the big majority of giant 5000 to 7000 ton hydraulic presses, purchased by the aircraft industry, are H-P-M's.

We are proud of the contributions H-P-M All-Hydraulic Presses have made in solving specialized production problems of the aircraft industry. Pressure processing and H-P-M may be able to play a profitable part in your production so, why not make it a point to "talk shop" with an H-P-M engineer today?





THE HYDRAULIC PRESS MFG. COMPANY

1000 MARION ROAD . MOUNT GILEAD, OHIO, U. S. A

Inland's unique size and location give customers a distinct advantage: the opportunity for prompt and clear answers to your urgent problems. Management, mill and sales people are close to each other. They can sit down face-to-face and work together to reach quick decisions affecting you.



NLAND STEEL COMPANY 38 South Dearborn Street · Chicago 3, Illinois
SALES OFFICES: Chicago, Milwaukee, St. Paul, Davenport, Kansas City, St. Louis, Indianapolis, Detroit, New York

INTERNATIONAL OUTLOOK

BUSINESS WEEK OCT. 17, 1953



Now, more than ever, the East-West struggle is in the hands of the diplomats.

Western statesmanship—initiative, flexibility, imagination—will be called upon to the limits of its resources in the coming months.

The surprise foreign ministers' meeting in London this weekend is trying to prepare the ground for the diplomatic battle of wits to come.

Dulles, Eden, and Bidault are hoping to:

- Put final touches on a reply to the recent Soviet note on Germany. The West may make some concessions here, try to force Moscow to put up or shut up.
- Resolve, if possible, the matter of face-to-face talks with Malenkov;
 deal with the mushrooming speculation about a "guarantee" of Russian security.
- Meet the sudden, ugly crisis in Trieste. The West was taken aback by the violence of the Yugoslav reaction. Somehow, Tito must be appeased.

There's little danger that the Trieste business will flare into shooting between Yugoslavs and Italians.

Moreover, Yugoslavs insist they'll have nothing to do with Soviets "mediation attempts." Though this is Yugoslavia's first break with its new-found Western friends, Belgrade can hardly turn back to Moscow now.

At stake in Trieste, however, is the new Balkan alliance linking Greece, Turkey, and Yugoslavia. There's also the problem of the West's strategy in the Mediterranean.

A continuing cold war between Italy and Yugoslavia would make any kind of Western strategic cooperation there impossible.

London and Washington, though determined to stick by their Trieste decision, are casting about for a face-saver for Marshal Tito.

They will probably grant his demand for a full-dress conference of interested parties. They may promise, among other things, that Zone B of the territory is to remain permanently in Yugoslav hands—a guarantee of Belgrade's western borders against Italian expansion.

That, of course, will enrage the Italians, who insist they must have all of Trieste.

A compromise must be found. History shows that sooner or later Balkan hatreds erupt into violence—and war.

Once more, Secretary Dulles and his colleagues will propose a Big Four foreign ministers' meeting to talk about Germany.

This time, the Western note will concede a willingness to widen the agenda beyond Germany. And it probably will contain in broad outline ideas for guaranteeing Soviet security (BW-Oct.10'53,p161).

Secretary Dulles, doubtful that the Russians are willing to talk, may propose that the West bait the hook with this gimmick: announce that the foreign ministers' meeting on Germany is coming off anyway, whether or not the Russians attend.

If they don't show, so the logic goes, the world will at least know who is obstructing peace.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK OCT. 17, 1953

On the issue of direct, informal talks with Malenkov, Churchill and Eden may have some special information for Dulles. Washington, you'll remember, is dead set against such a meeting now.

It's best to discount London rumors that Sir Winston plans to go to Moscow alone. But everyone is puzzled by the phrase in his speech last weekend that spoke pointedly of Britain's "growing influence" with Russia.

They wonder if Britain has learned something important in regular, diplomatic conversations in Moscow. Informed Londoners can't escape the feeling that Sir Winston may produce an ace from his sleeve when he meets Dulles alone.

Ace or no, it's worth-while keeping this in mind amid mounting hopes for a deal with Russia: What does the West have to bargain with?

A bargain, remarked the London Economist last week, requires "some give as well as take." Can we guarantee the borders of the Soviet satellite empire? What becomes of our moral commitment to liberation then? Will any German ratify permanent Soviet control of Germany's captured eastern lands? Could Washington ever agree to a neutral Germany, after all its efforts to tie it to the West?

Years, dangerous years, may go by before there's any basis for a settlement.

Some influential French leaders agree that there's no hope for a German settlement with Russia now. So they want to put their chips on a Big Five meeting—with Communist China.

They think that perhaps the Far East should have top priority; there, at least, exists some possibility for achieving a limited agreement with China over Korea and Indo-China.

If there could be some relaxation in Asia, say these Frenchmen, it might spread to Europe.

Right now, tension is high in Korea. Syngman Rhee still threatens to renew the war; the Allies are disagreed over India's role; the political conference remains a will-o'-the-wisp.

Last weekend brought a ray of hope, to be sure. The Chinese agreed to a sort of "preliminary" political conference at Panmunjom. Apparently Peking wants to keep the truce alive.

No one is sure just what, besides propaganda, the Chinese hope to gain from such a meeting. But the U.S. is going along, for the present. It may be the nearest thing we have to the promised Korean conference—and it could go on for months.

British investors have lagged far behind Canadians and Americans in Canadian oil development. It's only recently that they have been able to put dollars into Canadian natural resources at all (page 140).

Now the titan of British petroleum, Anglo-Iranian Oil Co., has made its first big investment in Canada. After a year of scouting, AIOC has purchased a \$5-million, 23% interest in Triad Oil Co., Ltd., Calgary.

That interest may rise to 50% later. Meanwhile AIOC will appoint some directors, send technicians to Triad. Its output is small now, but the company has valuable exploration concessions in Alberta and the Williston Basin area.



If your life hung by a thread



Most of us don't have to be as certain of the bolts we buy as this experienced mountain climber. The eyelet on which his climbing rope is hooked is held in the rock by an expansion unit driven by a $\frac{3}{16}$ UNBRAKO Socket Head Cap Screw.

If you were as careful, you'd never order any screw but an UNBRAKO when you need a first-rate fastener to produce a first-rate product.

Unbrakos are made by SPS of Jenkintown, originator of socket head cap screws and the world's largest manufacturer of them. Even a casual glance at an Unbrako—its knurled head, its uniform hex socket, its smooth shank and precision threads—convinces you it is a close tolerance fastener of the highest quality.

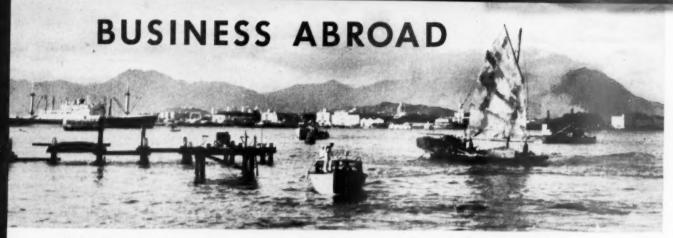
It takes more than a casual glance, however, to understand where an UNBRAKO gets its strength—as high as 160,000 to 180,000 psi.

The answers lie in the fact that it is made of heat-treated alloy steel; that the threads are fully formed to maintain continuous grain flow and prevent shearing; and that even such minute details as rounding the crest and root of the threads to eliminate flat, sharp points are not overlooked.

Your life may not depend on an UNBRAKO, but the life of your product may. UNBRAKO Socket Head Cap Screws are available from industrial distributors everywhere. STANDARD PRESSED STEEL Co., Jenkintown 57, Pa.

Our Fifteeth Year : A START FOR THE FUTURE





A fine harbor, a free port, and freedom from communism draw traders of the Western world . . .



THE STREETS of Hong Kong swarm with a polyglot population-Chinese, Indian, European, American. Mostly, they tend to forget the Red menace at the borders.

Hong Kong:

More than once during the continuing discussion of East-West trade, Americans have been led to believe that the Crown Colony of Hong Kong exists solely for the purpose of trading with Red China, and that its British masters are waxing fat and prosperous in the exchange.

Two weeks ago, the Stassen report on trade with the Soviet bloc helped to put Hong Kong's trading position into clearer perspective (BW-Oct.10'53, p150). Only a fifth of Hong Kong's \$1.2-billion world commerce in 1952, said the report, was with Communist China. Even now, with a truce in Korea, that trade doesn't promise to be a great deal more.

• Outpost—Trade, large or small, is not the only importance of Hong Kong since Mao Tse-tung swept through China. In the city burn the free world's last lights on the mainland of China. As in West Berlin, the people of Hong Kong have learned to live on the razor's edge—and not think much more about it.

For the most part, they're too busy with business. Hong Kong is still the most important trade and transshipment point in the Far East. Its importance to non-Communist Asia is growing all the time. Because so many countries are plagued by internal strife, government indecision, economic upheaval, Hong Kong stands out as an oasis of political and financial stability—a free port with splendid harbor and storage facilities, low handling charges, and rock-solid banking and insurance houses.

Moreover, Hong Kong is both a listening post and an advertisement for the free world. Over 2-million persons, mostly Chinese, live and work there. Since the fall of Chiang Kai-shek, Hong Kong has opened its doors to almost a million refugees. If the colony were lost, they would be lost. And among the refugees are some of the most able



. . . and China's refugees to . . .

Too Busy to Be Frightened

brains of non-Communist China, many of them young people, Americaneducated, pathetically planning and hoping for return to their homes.

• Back and Forth—Each day, too, sees around 300 Chinese coming and going between Hong Kong and China. Many report on what's going on behind the bamboo curtain; many say something when they're within China about freedom as it exists in Hong Kong.

It's not hard to see why Hong Kong is dear to the British: It is one of the most beautiful cities of the Far East. It reminds visitors of San Francisco. The urban area of Victoria, capital of Hong Kong island, runs up a steep hillside; from The Peak, an Asian edition of Telegraph Hill, you can watch a busy harbor and hustling streets.

A ferry-voyage away from the island is Kowloon, the industrial center on the mainland peninsula. Between Kowloon and the Chinese frontier are the "New Territories," hilly and mostly barren land but with a few market towns and factories. Without Kowloon and the New Territories, whose lease runs out in 1999, Hong Kong island couldn't exist. Its drinking water, for one thing, comes from the mainland

• Trading—Hong Kong's economic life has traditionally consisted of the exchange of the Far East's raw materials for U.S. and European manufactured goods, with a heavy concentration on China trade. But since the arrival of communism, with its sweeping reorientation of Chinese trade to the Soviet bloc, and the Korean War, with its restrictions on Western trade with China, the pattern is changing.

For example, Hong Kong's exports to China dropped from \$255-million in 1950 to \$91-million last year. And while the trade has been increasing so far this year, as the Chinese indicated more willingness to purchase the goods that the West was willing to sell, there is no sign that it will ever return to what Hong Kong businessmen would like to think of as normal.

Now, for the first time in its history, Hong Kong is becoming a manufacturing center in its own right. A spectacular expansion of local industry has taken place, accounting today for 25% of Hong Kong's exports. There are 2,000 registered factories, producing rubber goods, leather products, hardware, textiles, plastics, paints, matches, flashlight batteries. There is a lively shipbuilding and repair business, with 200 firms registered.

Along with the legitimate industries is a burgeoning counterfeiting business, which takes naturally to the free-wheeling atmosphere of an open port. More than one irate U.S. manufacturer has found imitations of his product, trademark and all, flowing out of Hong Kong's countless lofts (BW-Jul.4'53, p98).

• Shifting Focus—More and more of Hong Kong's products, and its imports are going to non-Communist Asia. While China's share of Hong Kong exports has dropped to 18%, and its imports to 22%, the colony's trade with Indonesia has risen from 5.5% to 18% of the total; with Thailand from 2% to 8%; with Formosa from 3% to 7%.

Nonetheless, China trade is vital to Hong Kong's existence—for the one simple reason that its food comes from the mainland. Hong Kong businessmen are chafing under the United Nations embargo on strategic goods shipments into China. The British authorities in Hong Kong, egged on by Washington and London, have cracked down hard and the rules are strictly enforced.

The enforcement sometimes leads to incidents; as a result Hong Kong's borders with China have a hostile and tense air about them. There are no

THE THRILL A MAN DESERVES



WHISTLING WINGS CALL YOU

Crouched low in your blind, cold and jittery...you hear them whistling in. What a thrill! Then up quick and you blaze away. There'll be ducks in the freezer tonight (and a new look in your eye!). Get your share of this exciting sport this season. Take a Winchester Model 12 shotgun with you. You can rely on its smooth action and perfect balance to bring down those fast fliers. You'll shoot better when you answer the CALL...

with a WINCHESTER

MODEL 12

- Winchester Proof (chromemolybdenum), the finest gun steel.
- More safety features;
 Winchester proof-tested.
- Unsurpassed balance, a "natural pointer."
 Smooth, easy loading,
- fast, reliable action.
- Perfect Repeater, world's most imitated shotgun.

\$93.85

Price subject to change without notice.

ANOTHER Olin PRODUCT

ARMS AND AMMUNITION RIVISION OF OLIN INDUSTRIES, INC., NEW HAVEN 4, CONN.



GOES PLACES IN NARROW SPACES

Revolvator Go-Getter Powered Hand Truck permits maximum use of storage or productive areas. The compact model shown above is a Hi-Straddle Lift with fingertip control fully automatic 200° turning arc—slight operator training. Let us know your problem and we'll help you solve it.

Write or Phone

REVOLVATOR CO.

8711 Tonnele Avenue, North Bergen, N. J. UNion 3-8120



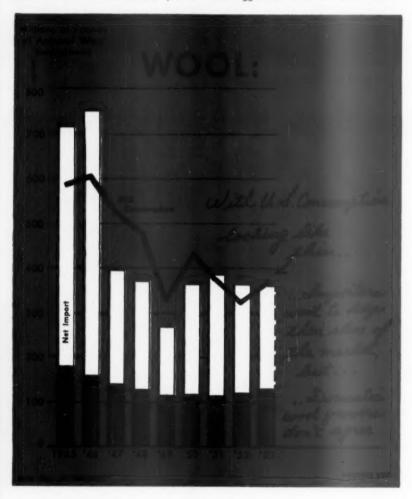
official relations between Hong Kong and the Chinese authorities, and border incidents are handled by British police.
• Tricky Problem—Sir Alexander Grantham, Governor of Hong Kong, has a sticky administrative and diplomatic job. He must deal firmly with mainlandsponsored incidents, on the border or in the colony proper, without provoking

trouble. He has to deal with the eco-

nomic burden of homeless, jobless

refugees. He must keep business perking, and uphold the embargo. He has to keep an eye on Communists inside the colony.

The Red influence there has dropped in the last two years, but in the labor unions it remains considerable. No one in Hong Kong entertains illusions about the Communist capacity to take the colony, by internal insurrection or by bald aggression from the mainland.



Will Wool Tariff Go Up?

The Tariff Commission this week is working on the hottest tariff case that has confronted the Eisenhower Administration since it took office—a plea for an increase in the wool import duty.

At stake are (1) the whole network of reciprocal trade agreements negotiated by the U.S. since the war, (2) the Administration's efforts to liberalize Western trade, and (3) the future of the U.S. wool growing industry.

Here's what has brought the problem to a head:

• The domestic wool clip has dropped from 210-million lb. (scoured basis) in 1941 to 120-million lb. in 1952.

 Imports now supply two-thirds of domestic consumption needs.

 Despite falling domestic output, the Agriculture Dept. has accumulated a 100-million lb. wool stockpile under the price support program.

• Synthetics have cut into the demand for wool. In 1949, wool made up 17% of the total apparel fibers consumed, synthetics 22%. By 1951, wool had dropped to 15%, synthetics were up to 23%.

Protagonists in the tariff fight have

used these facts to back up their case in the hearings held by the Tariff Commission last month. At that time, the Commission had before it a petition by the U.S. wool growers asking it to recommend a special 15¢-a-lb. fee on top of the present 25¢ tariff on imported apparel wool. (Only apparel wool is involved since carpet wool isn't produced in the U.S. and comes in duty-free.) Section 22 of the Agricultural Adjustment Act requires that the Tariff Commission recommend additional protection if it finds that imports are interfering with the wool price support program.

Here is how the parties argued their

The wool growers said that falling prices, rising costs of labor and transportation, and shrinking pasturage have exposed them to slow strangulation by foreign competition. They cited the declining wool production figures.

The Agriculture Dept. sided with the growers, arguing that imports were interfering with the price support program. As long as annual production runs under 360-million lb. on an uncleaned basis, the department has to support the price of wool at 90% of parity. And it says that the growers have been storing their wool with the Commodity Credit Corp. because of sagging prices and competition from abroad. But the department wants to reduce its backlog by 40%, and on Sept. 1 it cut wool prices by 10% to get stocks moving.

Wool manufacturers opposed the increase, saying that a tariff boost would lift domestic wool prices. As the manufacturers see it, competition from synthetics, not rising imports, is the main cause for the wool growing industry's decline. A price increase now, they say, might cause wool to price itself out of the market. To the claim that imports are interfering with the support program they reply by pointing to estimates which show that 75% of this year's clip is already in the hands of

private industry.

The New England manufacturers are the most outspoken opponents of a tariff increase. Many of their mills are relatively old, and not easily adaptable to weaving synthetics. So they would stand to lose the most from a

wool price increase. · Reaction Abroad-This is the first time the manufacturers have found themselves openly on the other side of the fence from the growers. They're getting powerful backing from abroad. A half dozen nations have warned the State Dept. of the international repercussions.

Australia, for example, has threatened to withdraw from the General Agreement on Tariffs and Trade under which many U.S. reciprocal trade agreements have been negotiated, if the wool tariff goes up.

That would set off a chain reaction around the world. The British would be forced to reinstate the Commonwealth preference tariffs for Australian That in turn would probably lead other Commonwealth producers to demand compensation-an increase of duties on imports competing with their products. Such a move by London would be certain to lead to retaliation by other nations.

• Free World-A tariff increase would also produce intangible consequences. Most of the trading nations of the free world have pinned their hopes for achieving an expanding world economy on some liberalization of U.S. trade policy. A unilateral duty increase on one of the major U.S. imports could dash the freer trade idea.

· Line of Policy-The debate has special significance this year because it is seen abroad as a test of the foreign trade intentions of the Administration. A line on this will come when the newly revamped Tariff Commission

makes known its views.

President Eisenhower has made two controversial appointments to the sixman commission-Joseph E. Talbot and W. E. Schreiber. Talbot is an admitted high tariff man. Schreiber's back-ground as a career employee in the Agriculture Dept. indicates conservatism on tariff matters but he has yet to be tested in his new role.

The odds are that the commissioners won't line up on straight high-low tariff lines. Regional background may influence the decision as much as philosophical conviction. Edgar B. Brossard, the conservative Republican chairman of the commission, hails from Utah, and Commissioner George T. McGill is a Democrat from Colorado-both leading wool growing states. Talbot, on the other hand, is from textile manufacturing Connecticut.

The new rules of the Tariff Commission add doubts as to the outcome. Congress decreed this year that the commission could recommend tariff increases by a three-three vote, scrapping the majority requirement of the past. This might tip the scales in favor of the additional wool duty.

· Report-The Commission is waiting for a special report from the Agriculture Dept. before making a ruling. Washington expects a decision soon.

The President can dispute the Commission's findings. If, however, he agrees that the imports are interfering with the support program, he is required by law to take action to reduce them-although not necessarily the measures recommended by the commission. He might impose, say, a quota on the volume of imports instead of a duty increase.

STOP TOWEL WASTE NIBROC[®]



NIBROC better-quality towels dry drier-faster . . . fewer are used. The result? Waste drops - costs drop washroom efficiency goes up! Superior absorbency, strength and softness make Nibroc the world's largest selling paper towel for industrial and institutional use. Multifold or singlefold, white or natural.



Softer, stronger, because it's made with a new combination of 100% pure cellulose fibres. For industrial and institutional use. White or natural. Save money through quantity discount by ordering towels and tissue together. Call your local distributor for samples and prices or write Dept. NE-10, Boston.



QUALITY COMPANY, Berlin, New Hampshire CORPORATION, La Tuque, Quebec

150 Causeway Street, Boston 14, Mass. Dominion Square Bldg., Montreal, Quebec



your best prospects are in new construction . .

DODGE REPORTS

they're located, anywhere east of the Rockies .

DODGE REPORTS TELL YOU WHEN

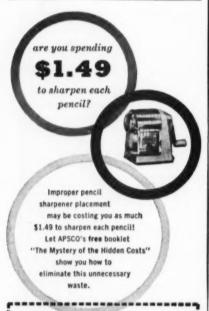
to call on them, right when they're ready to buy. Save salesmen's time...cut sales expenses...use Dodge Reports! Get "How to Use" book free. Write Dept. B5320.

DODGE REPORTS

119 W. 40th St., New York 18, N. Y. Timely, accurate construction news service East of the Rockies



THE FIRST STEP IN EVERY SALE COMPONENT





Apsco products inc. DEPT. B-3 336 NORTH FOOTHILL ROAD BEVERLY HILLS, CALIFORNIA

Yes, I'm interested in reducing office over-head. Please send me your free booklet.

(Attach coupon to your letterhead or business card and mail today!)

British Guiana Backfires

New constitution designed by British to groom colony for self-government gave the local Communist party an opening. The upshot: The British were forced to crack down.

The temperature of the ugly situate tion facing Britain in British Guiana (BW-Oct.10'53,p162) went up several degrees this week.

About 6,000 of the Caribbean colony's sugar workers went out on a strike called by the People's Progressive Party to protest Britain's action last week in suspending the colony's constitution and sending ships and troops to maintain order. In addition arsonists burned 13 acres of sugar cane.

· Communist Threat-Britain moved in Guiana when it came to the conclusion that the PPP, which has been running the colony under the guidance of a British governor since the constitution went into effect last April, is actually the instrument of an international Communist plot to gain a foothold on the South American continent.

This discovery is likely to alter Britain's plan for constitutional development in its colonies. It will also alert the U.S. to the Communist threat in the Caribbean and Latin America. And it gives an unwelcome black eye to Britain's new colonial policies.

• Backfire-Until last week British Guiana was one of several British colonies being groomed for self-government and eventual dominion status. The process, a delicate one, is working out in some areas-Africa's Gold Coast is an example. But in British Guiana it backfired.

The electorate that got the vote last spring was hungry and highly illiterate -easy meat for Communist get-richquick slogans. This was clear in the effect of promises of a house, car, radio, and sewing machine if the Communist PPP won the election. It did win, and a sewing machine agency was stampeded after the election by voters who took the promise to heart. They got no machines, just more promises of a better day if the British would get out and let the PPP rule in its own way.

By electing the PPP to office, the voters of British Guiana became the first in the world to put an out-and-out Communist party into power in a free election

• PPP-The PPP is pretty much the baby of one man and his wife-Cheddi and Janet Jagan. Jagan is an East Indian who came to the U.S. in 1936 to study dentistry at Northwestern. He became indoctrinated in the Communist party, and met and married Janet Rosenberg who was also active in party organizations. In 1944 they returned to British Guiana and formed the PPP. Both made several trips beyond the Iron Curtain, and when British Guiana's first election rolled around they were ready.

The PPP was the only really national party in British Guiana at the time of the election. Most of the other parties were shaky affairs set up just before the election. With this advantage, the PPP got just over 50% of the popular vote, won 18 of the 24 elective seats in the House. Under the new constitution, this permitted it to appoint six ministers to rule under the governor's guidance. As head of the majority party, Jagan became boss of this executive council.

• Into Action-At first British policy was to support the Jagan regime despite advice to the contrary from the U.S. Then events began that finally forced Britain to change its mind. The party introduced legislation that would have subverted education to PPP indoctrination. Another bill would have given it control of the police.

Next on the agenda came efforts to take over the labor unions. A strike was launched on the sugar estates; it all but paralyzed the country's economy and slowed imports to a trickle. Then the party pressed for legislation that would have forced employers to recognize unions set up by the party's labor minister.

At this point, Britain moved in. It suspended the constitution, and sent over two frigates, a cruiser and 700 troops. And a commission has been set up to survey the situation. There's also bound to be a big discussion in Parliament. The Labor party questions the need for what it considers a drastic move, wants to know if 10 Downing St. has some information that it's keeping under its hat.

· Next Step-The commission will find the situation thorny. But at least two things are clear. If Britain wants a democratic local government in British Guiana it has to build up a party to replace the PPP. Best bet is the National Democratic party, which now holds two seats in the House. This party is made up mostly of professional men and moderate, anti-Communist labor leaders.

Britain will also have to do something about Guiana's anemic economic situation. It will be a tough job, and will require a lot of outside capital. The U.S., anxious to rid the hemisphere of communism, can probably be counted on for some help.

Given the capital, British Guiana has the basis for a healthy economy. Its underdeveloped (and in some cases uncxplored) forests are full of strategic metals—bauxite, manganese, columbite—and gold and diamonds. The colony already produces 23.8% of the world's bauxite, and experts figure its resources of that ore have been barely touched.

BUSINESS ABROAD BRIEFS



John E. Peurifoy, a high State Dept. official under the Truman Administration, is the new U.S. ambassador in Guatemala, one of the most ticklish diplomatic posts in the Americas. Even as his appointment was announced last week, Guatemala was taking some new potshots at U.S. investments there: (1) It seized the International Railway of Central America during a strike, and (2) ordered an affiliate of American & Foreign Power Co., Inc., seized three months ago, to pay a thumping 100% wage boost.

U.S. Defense Dept. is moving fast on Spain. This week it chose four U.S. engineering firms to supervise construction of air and naval bases there. Leader of the group is Metcalf & Eddy, of Boston, which built the Air Force base at Thule, Greenland. The others: Frederic R. Harris Inc., New York; Pereira & Luckman, Los Angeles; and Metz & Dolio, of Chicago.

World's largest Scotch whisky maker, Distillers Co., Ltd., Edinburgh, bought New York's National Distillers Products Corp.'s Scotch whisky subsidiary, Train & McIntyre, Ltd., of Glasgow. National Distillers got 2-million shares of Distillers Co. stock plus cash. Total transaction involved about \$7-million.



Does the Moon Cause Madness?

Transfiguring the landscape with its unearthly radiance, the bright light of the full moon has disturbed troubled sleepers for centuries. For this reason our ancestors, who found explanations in the natural forces for things they could not understand, blamed the moon for producing madness.

Because it's hard to dispel ideas once universally accepted, the belief in moon madness still clings in remote parts of the globe. In the same way, antiquated ideas and methods still



hold on to retard progressiveness in Industry. Adhering to the slower methods of casting or cutting from solid, when parts can be produced more economically on modern Clearing presses, is a case in point.

Why not examine your manufacturing methods with an eye toward improved production using up-to-date press methods? We welcome the chance to discuss your problem with you. Get in touch with Clearing Machine Corporation, today.

CLEARING MACHINE CORPORATION

6487 WEST 65TH STREET . CHICAGO 38, ILLINOIS HAMILTON DIVISION, HAMILTON, OHIO

CLEARING PRESSES



THE WAY TO EFFICIENT MASS PRODUCTION



Massachusetts Investors Trust DECLARES ITS

116th Consecutive Dividend

The Trustees have declared a quarterly dividend of 22 cents a share, payable October 26, 1953 to shareholders of record at the close of business September 30, 1953. This dividend is entirely paid out of dividends and interest received by the Trust on its investments.



ROBERT W. LADD, Secretary



SMOKELESS FIELD FLARE BURNERS

Dumped Gases now burned WITHOUT smoke, it's a smogless burner.

JOHN ZINK COMPANY 4401 S. Peoria Tulsa, Okla.



Bargains in BURROUGHS

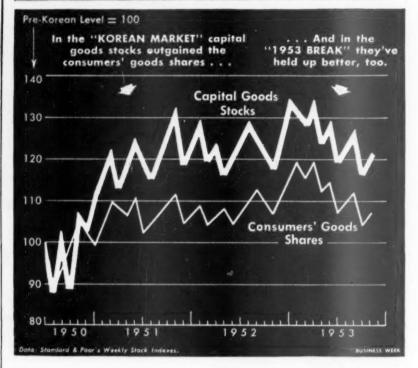
ADDING MACHINES Class conditioned — One Year guarantee — 390 tary Duty — Full keyboard — 8 column party — Visible dials, 2 cotor ribbon.
ALSO SUNSTRAND: VICTOR: ALER-WALES MAND AND ELECTRIC MODELS.

The Supermerket for Figuring Machines AAA Adding Machine Co. Bept. 16 182 7th Ave. (Times Sq.) N. V. C. 36, Lo 5-6983

help wanted

- every business man needs help-and needs it badly—at some time or other.
- If you have a business service that
- will help America's business execu-tives the readers of BUSINESS WEEK then tell them through the
- Business Services.
- Just write Classified Division,
- BUSINESS WEEK, 330 W 42nd St, NY 36

THE MARKETS



Now, Will the Trend Shif

For a long time a favorite piece of Wall Street advice was: Buy capital goods stocks. So far, it has turned out to be pretty good advice, especially if you did the buying rather early.

If pre-Korea prices are taken as a yardstick, capital goods as a group have far outpaced consumer goods shares in the frequently hectic markets that followed the outbreak of the war. The chart above shows that:

· Capital goods shares rose higher and faster in the bullish Korea market of 1950-1952.

• In the "bear" market that has followed, the capital goods have held onto more of their earlier gains.

Now, it looks as though the situation will change in the months ahead.

· Agreement-Despite the wide differences of opinion among economists on the business outlook for 1954, there is still pretty wide agreement on two points (page 62).

· Even the most optimistic prophets admit that there will probably be at least a moderate drop in industrial activity next year.

· The downtrend, will have a much sharper impact on heavy goods than on nondurable items.

It's obvious that everyone in the market has been taking these factors into consideration. Indeed, the heavy goods

shares are already showing signs of pain. Durable goods, though still the best performers, have lost a good deal of their former edge over consumer goods all through the general rise of the market that has followed its record 1953 low last month.

· Rock Bottom-More and more Wall Streeters are beginning to think that the consumer goods shares are now the better buy. This school has some solid arguments. Its supporters claim that many consumer goods stocks have fallen so low that it would take a complete collapse of the economy to push them any lower.

Quite possibly this advice is sound. But it's a good idea to remember that early this year a good many people in the Street also said that a lot of consumer goods shares were "oversold." Anvone who took their advice to buy at that time would have lost his shirt. For example: Celanese Corp. of America started off in 1953 36% below its Korea market high. Since then it has fallen off as much as 64%; National Distillers Corp. was off 42% when the year began, is now off 54%; Merck & Co. was down 36% to start the year, and has kept on sagging to 54%.

· Some Drops-Another point to consider is that not all of the heavy goods stocks have been doing well in the past few months. It's quite possible that some of them are in the same oversold position that is claimed for the consumer goods group. To cite a few: New Jersey Zine is now at \$43.50, down from a bullmarket high of \$83.75; Anaconda Copper is at \$30, down from \$55.75; Underwood Corp. is at \$34,

down from \$58; Oliver Corp is around \$9, down from \$18.50.

What this all adds up to is that if you want to buy some of these "over-sold" issues, pick them solely on their own merits. Don't buy them just because they are part of an allegedly depressed group.

Investment Trusts Reshuffling Holdings, Too

The investment trusts, as well as individual investors, have been doing considerable reshuffling of their portfolios this year. That's Wall Street's report. And it's confirmed in the tabulation below. Compiled by Vickers Brothers, this lists the trusts' 50 favorite common stock holdings at midyear and also compares their popularity then with that enjoyed in earlier times.

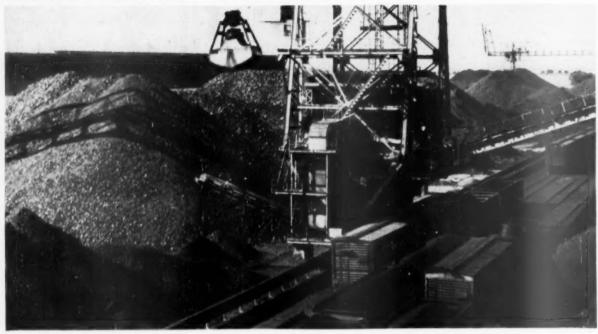
According to the table (based on the portfolios of 177 open- and closed-end trusts with assets exceeding \$5-billion),

utility, chemical, electrical equipment and tobacco shares rose in the trade's esteem during the 1953 first half. Simultaneously losing favor in varying degree were the oil and natural gas, rail, rubber, metals and mining, auto and merchandising groups.

The two most favored individual first-half purchases were du Pont and American Tobacco. Among those showing the greatest drop in popularity during the same period were Chrysler and Montgomery Ward.

Dec.	k by M. June	Dec.	June		Market	Trusts	Shares	% of
31,	30.	31,	30,		Value	Owning	Held	Issue
1951	1952	1952	1953		(Millions)	Shares	(Thousands)	Held
1	1	1	1	A		29	483	15 30%
2	2	2	2	Amerada Petroleum		72	643	1.06
4	3	3	3	Standard Oil (N. J.)	42.0	63	761	7.81
5	5	4	4	International Paper		6.3	783	8.80
15	17	14	5	E. I. du Pont de Nemours	39.7	66	418	0.92
9	9	6	6	General Electric	38.8	70	547	1.90
7	6	5	7	B. F. Goodrich	36.1	49	541	12.98
6	7	8	8	Texas Co		52	675	2.45
10	6	9	9	Standard Oil (Cal.)	35.0	55	676	2.36
3	4	7	10	Gulf Oil		60	768	3.25
31	15	10	11	General Motors	31.6	58	528	0.61
14	20	11	12	Westinghouse Electric	30 9	66	699	4.44
12	12	12	13	Union Carbide & Carbon		65	456	1.58
8	10	13	1.4	Kennecott Copper	28.9	62	451	4.17
42	2.3	18	1.5	Atchison, Topeka & Santa Fe		44	284	5.84
16	11	15	16	Phillips Petroleum	25.8	57	465	3.19
-	-	46	17	American Tobacco	25.3	3.3	341	5.29
33	14	20	18	Southern Pacific	24.6	42	560	6.19
29	26	23	19	Middle South Utilities		45	962	13.50
27	25	27	20	Aluminum Ltd	24.4	44	516	5.73
46	36	33	21	Shell Oil	24.1	37	346	2.57
21	22	21	22	Sears, Roebuck	24.0	37	409	1.69
-	4.3	26	2.3	General Public Utilities	23.7	51	967	10.63
20	18	19	24	United Gas Corp	23.4	47	975	8 32
11	19	29	25	Monsanto Chemical	23.0	52	267	5.07
13	1.3	17	26	Dow Chemical	22.7	48	629	2.94
40	44	32	27	Int'l Bus. Machines	22.2	31	96	2.99
34	34	28	28	Socony-Vacuum Oil	22.1	55	631	1.80
22	24	24	29	Bethlehem Steel	22.0	51	4.35	4.54
18	16	22	30	Standard Oil (Ind.)	20.8	38	289	1 88
44	-	41	31	American Tel. & Tel	20.7	47	135	0.34
36	28	.30	32	Niagara Mohawk Power	20.4	54	810	7.65
50	-	-	3.3	National Lead		3.3	638	6.29
_	-	-	34	R. J. Reynolds Tobacco,		29	4.31	4.58
_	44	42	35	Seaboard Air Line R. R	19.6	27	176	17.99
41	35	31	36	Panhandle Eastern P. L	19.5	29	279	R . 26
35	37	35	37	Central & Southwest Corp	19.4	5.3	1001	11.01
26	31	25	38	American Gas & Electric	19.1	44	671	5.67
-	-	48	39	Texas Utilities Co		34	468	8.27
49	-	-	40	Ohio Oil Co. (Ohio)	18.3	44	333	5.07
-		44	41	Southern Co		4.3	1270	7 02
-		34	4.2	Pirestone T. & R		29	281	7.15
25	27	40	4.3	Skelly Oil	17.1	2.3	213	7.42
37	39	43	44	Int'l. Nickel of Canada		35 41	406 338	7.73
_	42	38	46	Illinois Central R. R.		20	217	15.96
19	21	36	47	Montgomery Ward	16.3	48	281	4.32
47	29	16	48	Chrysler Corp		37	225	2.58
-	_		49	Consolidated Edison (N. Y.)		34	422	3.12
	_		50	American Can		30	447	4.11





BIG COAL STOCKPILES and the fact that industry is definitely cost-conscious play a big part in shaping . . .

What Lewis Will Demand

Since early August, the big question in labor relations has been a hardy perennial: What will John L. Lewis do this year?

The question is still unanswered. As always, Lewis has kept his own counsel. Still, clues to the coal prospects can

be found now. They indicate:

• The United Mine Workers will

• The United Mine Workers will probably serve demands on mine operators in the next two to three months. But critical bargaining will be delayed until after the first of the year, to protect the miners' Christmas earnings.

• Lewis is well aware of the national economic situation, so the demands will be conservative in comparison with the past. UMW won a \$1.90-a-day raise last fall, bringing daily pay up to \$18.65. There will be no such high goal this year.

• No matter what the demands are, they will be resisted by many operators. The southern group has warned UMW that "another wage boost would put some coal operators out of business. Others . . . would be forced to go nonunion to survive." There's also opposition in the North to any new concessions.

Lewis could have served bargaining notices as early as Aug. 1, 60 days before the earliest possible termination date (Oct. 1) for coal contracts negotiated last year. He is supposed to have actually had a preliminary set of demands ready about them. If so, he did not find it strategic to present them.

not find it strategic to present them.

There are no signs that Lewis is in any more of a rush now than in August. People close to him say they "expect" nothing much in the way of bargaining developments "for some time to come"—except, possibly, a few private meetings with major operators to discuss "common problems."

• No Pressure?—There are many reasons why Lewis is moving slowly to convene his wage-policy committee and drop the first shoe.

The coal fields, and particularly southern mines, reflect no real pressure from UMW's rank-and-file for contract changes. Miners are not working full time. They are apparently more interested in maintaining their limited daily earnings than in precipitating a crisis. Few have reserves for a strike.

That's just a part of the picture. Coal stockpiles are high, an estimated 77.9-million tons above ground at the end of August—enough to supply industry normally for 45 to 60 days. Production has been running high, at a rate of about 35-million tons a month.

The above-ground reserve of coal is a little smaller than the 83-million ton reserve a year ago, but the reserve may go further than last year. For example, the steel industry is slowing down a bit (page 27).

Quite obviously, Lewis is aware of the big stocks—and conscious of their implications. Tough demands cannot be pressed while coal stocks are big.

• Memorial—Past experiences have proved that Lewis has ways of whittling down coal piles. UMW contracts permit union-designated "memorial periods" of up to 10 days. Lewis could call miners out of the pils for some such period, to lower stockpiles and at the same time dramatize the impact of a coal stoppage.

But would such a halt help UMW strategy enough to offset the lost wages? It's doubtful that Lewis, and top union aides, would think so. The objections that miners would have to quitting the pits are only part of the reason.

An increasing amount of coal is being produced by non-UMW miners. The high cost of UMW-mined coal (including the 40¢-a-ton royalty for UMW's welfare fund) has switched a lot of coal orders to non-UMW mines. Some steel companies reportedly find it cheaper now to buy coal from outside mines than to produce it themselves at "captive" mines. Under these circumstances, a UMW "memorial" stoppage might hurt rather than help the union,

by spotlighting the fact that at least part of industry's coal needs can be met despite a ÚMW stoppage.

So UMW appears more than ever vulnerable this year.

These factors explain why UMW is likely to come up with more conservative demands-more conservative from UMW's standpoint, at least. Earlier this year Lewis reportedly was considering a new kind of wage deal in the coal industry: one that would stick profitable mines with a substantial pay hike, require less-profitable mines to boost wages by some smaller amount, and let marginal mines go scot-free until their lower-cost production makes them profitable (BW-Jul.4'53,p104).

This may show up in UMW demands as a bold move to equalize coal output between big-production "captive" mines and the marginal group, which includes many in the South. To at least some in UMW, the demand looks strategic this year when:

 Steel companies clearly will be in no hurry to grant new UMW demands. They are far more interested now in scrambling about for ways of reducing the price of steel than in bargaining on wage demands that would raise labor costs-and inevitably prices.

· Southern bituminous operators, through Joseph E. Moody who heads their Southern Coal Producers Assn., are planning to press for some wage differential that would help them recover lost markets.

In recent years Lewis' divide-andconquer strategy has been to negotiate settlements with more-profitable north-ern "captive" operators, and then force the southern group to meet the terms. The reverse strategy might be used this year-if northern operators really fight.
• Possibilities-Lewis and UMW have also talked of a need for shorter hours of work (a six-hour day instead of eight) to relieve unemployment. To the men in the coal fields, this is something far more tangible than the reported Lewis plan to equalize production. It's a major discussion topic at every UMW district conference.

Moreover, recent reports on the financial condition of UMW's welfare fund fortify indications that the union wants another increase in the welfarefund royalty-from 40¢ to 50¢.

It's possible, even probable, that unless there is a real change in coal economics in the next few months, Lewis might settle for these two things. This would let Lewis claim a raise comparable to pay boosts in other industries.

Would employers accept these terms? Northern operators might-if the production-equalization plan isn't pressed. Southern operators would hardly accept them without a fight unless the production-equalization plan, designed to give them a cost differential, is included.

Minimum Wages...

. . . on federal contract jobs pile up headaches for new labor secretary. Texas case looms first.

The Eisenhower Administration's second Secretary of Labor-businessman James P. Mitchell (page 28)-already has problems piling up before him. One of the first demanding his attention is the controversial "wetback" question involving imported farm labor. But that's only a beginning.

Other problems, and probably more troublesome ones, involve governmentrequired minimum wage rates on fed-

eral contract jobs.

• In the Middle-Two statutes, the Walsh-Healey Public Contracts Act and the Davis-Bacon Prevailing Wage Law, give the Secretary of Labor authority to determine the minimum wage that must be paid by contractors on federal projects. Inevitably, this plumps the labor secretary down into the middle of hot disputes between management and

The latest of these involves an application of the Davis-Bacon act in Texas. one of several instances in which general contractors and some government procurement agencies say there's been improper application of the law.

· Pipes and Pay-The day after Martin P. Durkin became Secretary of Labor last January, the Dept. of Labor ordered a contractor on the \$37-million West Dallas (Tex.) housing project to use AFL plumbers instead of semiskilled pipelayers to lay underground pipes. This more than doubled wage costs for the job since the Dallas scale for plumbers is \$2.61 an hour, for pipelayers \$1.25 an hour.

The order, signed by former Assistant Secretary of Labor Ralph Wright just before Durkin was sworn in, said it was the "prevailing practice" in the West Dallas area for plumbers to lay underground pipe. Earlier, the late Maurice J. Tobin, who preceded Durkin as secretary, O.K.'d use of pipelayers on the job, at the lower rate of pay despite AFL Building Trades Council protests.

The Public Housing Administration protested the Wright reversal of Tobin's original ruling. The protest got nowhere with Durkin. Now it's going to be pressed again, before Mitchell, as part of a campaign against the forced use of more expensive skilled craftsmen on jobs that semiskilled workers can handle outside building lines.

• Congress-If Mitchell turns down the protests-and possibly even if he doesn't -agitation will be renewed at the next session of Congress to make Davis-



Is your Shipping Tag in focus?

When you get your shipping tag in focus, you get a picture of all the things it can do:

direct your shipment give handling instructions tell what shipment contains show customer's order number

display your trademark advertise your products

reflect your company personality

Dennison research and design bring into focus all the things that give your shipping tag EXTRA VALUE.

It will pay you to talk with your Dennison representative.



Just Published!

WHY DO PEOPLE BUY?

A Close Look at Selling—the Great Unsolved Problem of American Business By the Editors of FORTUNE • 270 pp., \$3.50 Fortune's report on the state of selling in



A FORTUNE • 270 pp., \$3.50

rt on the state of selling in
ted with ideas for making
selling a more live and
resulful force in your organization. Concerned not
so much with canvassing
and closing sales as with
what makes the sales
wheels go round. What
are business men doing—and not doing—to
make selling a real force
in the economy? Why are
conditions what they are
today in many aspects of
selling? Fortune's articles
—one of the biggest hits in
the magazine's history—
tell why in expanded form
in this new book.

HOW TO BE A SUCCESSFUL LEADER

A systematic, practical method for appraising and mastering leadership. Points out and analyzes 3 basic techniques . . . shows when to use which. Shows part played by personality, how to handle groups, how to delegate responsibility, etc. By A. Uris, Editor, Research Institute of America. 238 pp., 9 lilus., \$3.50

HOW TO SELL YOUR WAY

Specific, practical rules to meet any selling situation . . . from the one where you lack confidence to the situation where you sell plenty but can't get in enough calls. Shows how to see more prospects, sell to more prospects, sell more of your product. By C. B. Roth. Pres., Roth & Associates, 207 pp., \$3.50

COLLECTIVE BARGAINING

Comprehensive, how-to-do-it book on the mechanics of successful present-day collective bargaining. Covers all vital issues—union security, management rights, wages, pension plans, etc. Discusses legal considerations non-technically, Gives help on enforcing agreement terms. Includes apecimen clauses. By S. H. Torff, Lecturer, Northwestern U., 323 pp., \$5.50

SUCCESSFUL LABOR RELATIONS FOR SMALL BUSINESS

Practical guidance to help win and keep good labor relations and protect your interests in bargaining and disputes. Tells how to create a sound labor policy, deal with union representatives, strengthen labor position in the small plant. By J. M. Hack and J. G. Piccoll, Associated Ind. of Cleveland. 415 pp., \$6.00

STANDARD COSTS FOR MANUFACTURING

Shows how to install a standard cost system in your plant . . set standards and control operational expenses . . use standard costs to simplify accounting procedures, budget forecasting, incentive planning, etc. By S. B. Henrick, Ind. Mgr., H. J. Heins Co. 2nd Ed. 336 pp., 60 Charls and Tables, 85.0.

10 DAYS' FREE EXAMINATION

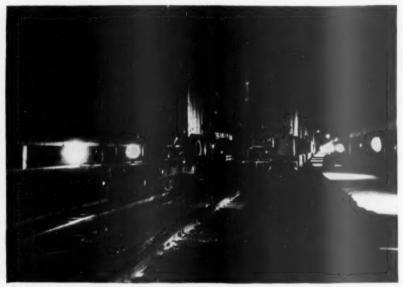
McGraw-Hill Book Co., 330 W. 425t., NYC Senst me book(s) checked below for 10 days' exa ination on approval. In 10 days 1 will remit book(s) I keep, plus few cents for delivery, return unwanted book(s) postpaid. (We pay delivery if you remit with this coupon—same ret prisitege.)	for and for
Fortune—Why De People Buy?—33.50 Cris—How to be a Successful Leader—33.60 Roth—How to Sell Your Way to Success—35.50 Black & Piccoil—Successful Labor Relations Small Business—86.00 Henric—Standard Coats for Mig.—\$5.50	E RO
(Print)	
Name	
Address	
City	***
Company	
Position	-17

Bacon wage determinations subject to court review. Congress took this step this year to curb the authority of the labor secretary under the similar Walsh-Healey act—which covers wages paid for goods manufactured for the government.

• Pressure—Meanwhile, Mitchell faces some Walsh-Healey problems, too. Unions, particularly CIO's Textile Workers Union of America, want minimum pay on government work pushed higher by directives from the secretary. Employers are strongly opposed to any further increases by fiat, and are resisting by legal maneuvers.

Durkin cautiously avoided issuing any controversial wage-hiking orders; as a labor man, he got only mild criticism (from TWUA president Emil Rieve) for this policy.

Mitchell will be under far more pressure from unions for new wage orders—and probably from employers opposed to any further Walsh-Healey directives. Preventing an open squabble will probably take all of Mitchell's hard-gained labor relations skill.



TRUCKS ON FLAT CARS would revitalize railroad shipping, say rail unions in . . .

Pressing for Piggy Back

Engineers and trainmen see chance of more jobs. And the teamsters show signs of easing their opposition.

Railroad engineers and trainmen want the railroad industry as a whole to get going on "piggy back" freight service—the movement of loaded truck trailers on railroad flat cars (BW-Sep.12 '53,p110). The service is now limited to a few roads.

Latest prodding came from the engineers' chief, Guy L. Brown, and the trainmen's president, W. P. Kennedy. The officials this week predicted that expanded piggy-back service would revitalize the nation's transportation system. At the same time Kennedy criticized railroad management for its lack of enthusiasm about piggy back—an attitude in large part due to a wariness of anything that might help the trucking industry.

 Number of Jobs—It looked like a clear case of man bites dog. Unions, usually chary of technological change lest it cut down on available jobs, were in the unaccustomed role of urging such a change on industry. But the reason was beautifully consistent: piggy-back freight service—which calls for more trains—means more jobs for trainmen.

On the other hand, piggy back could also mean fewer jobs for truckers, and Dave Beck's teamsters have from the start been a bitter foe of the whole idea (BW-Aug.9'52,p100). For a while, it looked as though trainmen and teamsters would row openly on the issue. But the teamsters are coming around to a cautious second thinking on operation piggy back. Although it cuts into long over-the-road truck runs, it also makes more pick-up and delivery jobs.

• "Peace" Talks—Because of this, the teamsters have had some "preliminary meetings" with the trainmen to see if satisfactory solutions can be worked out. Meanwhile, the teamsters are archly taking a "wait and see" attitude.

Joint Action . . .

...in aircraft bargaining gets a trial run in negotiations with North American Aviation in California.

Current negotiations between North American Aviation, Inc., and United Auto Workers (CIO)—now reaching the critical period—are being watched more closely than usual by the industry.

UÁW and its erstwhile rival in the industry, the International Assn. of Machinists (AFL), are working for the first time under a mutual-assistance agreement (BW-Jun.20'53,p169). They have set up a West Coast IAM-UAW coordinating committee to exchange information on collective bargaining covering 200,000 employees in Southern California plants during the rest of this year, and are committed to other joint action.

This is a first step toward what both unions say might eventually be a joint bargaining program. So obviously the successes and failures of this trial program look important to every aircraft

management.

• UAW Dickering—So far, IAM has stayed in the background in North American negotiations—the first of the fall bargaining in Southern California aircraft plants, and the probable pattern-setter for the rest of the West Coast industry. UAW is the key union at North American, and is out to win the same wages for aircraft workers that UAW auto workers now get (BW—Aug.8'53,p122) along with severance pay, a full union-shop clause, eight paid holidays, and other fringes.

North American is resisting these demands, which it claims would cost a "prohibitive" \$90-million a year. It offered wage increases and other benefits worth, it says, \$14-million a year. UAW turned down the offer, and local

members voted a strike.

Present North American-UAW contracts covering about 33,000 of the company's 54,350 employees run out next week.

 IAM Contracts—IAM is kept briefed on UAW-North American negotiations while it is bargaining, on its own, with Douglas Aircraft Co., Inc., and Lockheed Aircraft Corp., and is getting set for negotiations with Consolidated Vultee Aircraft Corp.

IAM wants a 10% increase (about 18¢ an hour) in wages and fringes from Douglas. The union's demand at Lockheed is for a 12% raise and fringe gains. IAM ran into trouble—and strikes—in Lockheed and Douglas bargaining a year ago (BW–Sep.20'52, p142).

Specify Farquhar Black Velvet
Roll-Free CONVEYORS
for the most economical gravity
installations possible!

In this complete handling system, Farquhar Black Velvet ROLL-FREE gravity conveyors first move cases of empties to bottle washing machine. After bottles are washed, filled and capped, they are stacked in the cases, which have now moved to operator at left. The filled cases are then moved out to storage by conveyor, passing over empties moving in to be washed.

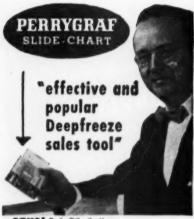
NLY with Farquhar's line of Black Velvet ROLL-FREE gravity conveyors do you get the assurance of longer, trouble-free service that spells real economy through the years! That's because every wheel, roller and bearing in Black Velvet ROLL-FREE conveyors is treated with a special process to resist rust and corrosion . . . to keep moving parts turning smoothly when conventional conveyors fail. This process is the same penetrating treatment that withstands the 24-hour salt spray test as prescribed by government specifications for certain weapons used under the most severe field conditions,

so you know it's got to be good!

What's more, ROLL-FREE conveyors give you the maximum strength of rigidly cross-braced steel frames...yet are light in weight to assure ease of handling. They're available in straight and curved sections, to fit any installation requirement. When you need gravity conveyors, be sure to specify Farquhar Black Velvet ROLL-FREE conveyors. Our engineers will be glad to assist you, at no obligation!

A complete line of standard Farquhar ROLL-FREE conveyors without the Black Velvet treatment is also available.

OLIVER	FREE! "Rall-Free Gravity Conveyor Felder" —showing Roll-Free line, specifica- tions, and typical installations.
	Farquhar MAIL COUPON FOR YOUR COPY
	THE OLIVER CORPORATION A. B. FARQUHAR DIVISION
POWER-BELT	Gentlemen: Please send me my free copy of "Roll-Free Gravity Conveyor Folder."
AND	Name
	Firm
GRAVITY	Address
CONVEYORS	City State Zone



Says: R. A. Gilruth, Mgr., Adv. & Sales Promotion, Deepfreeze Appliances

Perrygraf Slide-Charts pack lots of information into small space...a fact finder...just pull a slide or turn a disc wanted information immediately available ...all other information screened out. A practical and effective sales tool...they reach the men who buy.

Write for booklet and full information.

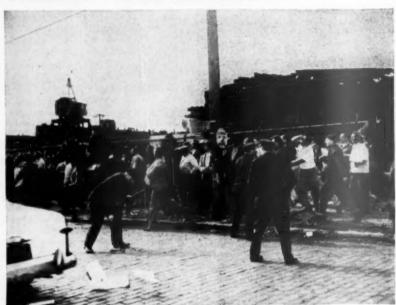
PERRYGRAF SLIDE-CHARTS

Designers and Manufacturers
PERRYGRAF CORP., 1301 Medison Ave., Maywood, Ill.
1072 Gayley Ave., Los Angeles 24, Celifornia
Representatives in Principal Cities





Violence Flares on Piers . . .



.. Then Police Clamp Down

The smouldering rivalry between the ousted International Longshoremen's Assn. and AFL's new dock workers' union flared up on New York docks this week, bringing a concentration of 1,000 policemen, including many mounted officers, to the piers.

The skirmish, first on the New York waterfront since ILA's ouster (BW—Oct.3'53,p172), resulted from a move by the new AFL union to work a pier closed by a strike of "Tough Tony" Anastasia's Brooklyn members of the old ILA. AFL longshoremen finally

succeeded in taking the pier jobs-with police standing by.

Meanwhile, a federal court extended a 10-day antistrike injunction against the old ILA for the full 80-day period allowed under the Taft-Hartley act (BW-Oct.10'53,p164). The court also (1) ordered Anastasia and other ILA officers to show why they should not be held in contempt of the T-H strike ban due to this week's Brooklyn walkout, and (2) indicated that the injunction would be made to apply equally to old ILA and AFL's new union.

LABOR BRIEFS

A meat wage pattern set in Armour & Co. and Swift & Co. bargaining with AFL, CIO, and independent unions is now firm throughout the industry. It includes a 5¢ general increase in pay (tenth raise since World War II) and 4½¢ for additional hospitalization and medical and surgical benefits.

Annual wage is now a major bargaining goal of the International Union of Electrical Workers (CIO), to "stimulate management to provide steady, full-time employment." IUE's annual convention in Montreal heard president James B. Carey report that the union now bargains for 400,000 workers and won a record number of NLRB elections in the past year.

A wage drive is planned by the Textile Workers Union of America (CIO) in the Southern cotton-rayon industry—where TWUA says workers "have not had an increase since 1950," although living costs have risen 10½%.

A strong fight against railroad union wage demands (BW-Sep.26'53,p176) is shaping up in the industry. Daniel P. Loomis, chairman of the Assn. of Western Railways, last week called union demands "so far out of line they are ridiculous" under present conditions in the industry (page 62). The statement is significant—Loomis often heads the carriers' nationwide negotiating committee.

Atomic energy organizing drive is planned by the Oil Workers International Union (CIO). At a Denver convention, the union voted to compete with AFL's International Assn. of Machinists for members in the growing industry (BW-Sep.19'53,p179). Other unions have the same idea, so rivalry will be hot.

Strike troubles are piling up in Canada (page 146), where wage-and-hour issues are involved in probably the worst

The Pictures—Assoc. Photographers—Cover, 122, 123, 124; O. H. Brandon—164 (top), 165; I.N.P.—156, 169, 176; Bob Isear—28, 30, 31, 92; David Linton—136, 138, 139, 140; Magunum Photes, Inc.—164 (bot.); Ed Nano—78, 79; Shell Oil Co.—190, 191; U.P.—115; Westinghouse Photo—84; Wide World—34, 82, 114; Geo. Woodruff—174.



"Seen one of these lately?"

Few probably have. To the average person, this complex switchboard conceals an electrical mystery behind each compartment door.

Though often unrecognized, this enclosure of circuit breakers, switching equipment, meters, and instruments is just as fundamental as a plant's foundation. For here is the *nerve center* of a plant's power distribution system. Not only does this "switchgear" protect plant and equipment; it efficiently distributes power through a network of feeder wires to any point in the plant where electricity is used.

Switchgear is an I-T-E specialty. Today, as plant equipment grows larger, stronger, and consumes more power than ever before, I-T-E switchgear plays an increasingly important role in the drama of American industry.

I-T-E CIRCUIT BREAKER COMPANY manufacturers for industry

circuit breakers • metal-enclosed switchgear power switching equipment • mechanical rectifiers electronic components • specialized metal fabrications

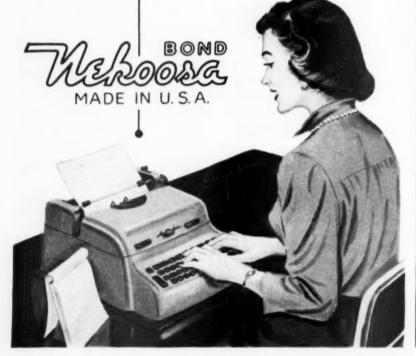


America does business on

NEKOOSA BOND

it pays to plan with your printer

One of the largest selling bond papers in the world, Nekoosa Bond is serving American business everywhere...adding prestige and distinctive appearance to letterheads and envelopes... making office forms more durable, more readable. For a better bond paper...see that it bears the famous Nekoosa watermark! Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin.



wave of walkouts since 1946. Meanwhile, the United Steelworkers (CIO) convened its wage negotiators for two major steel companies in Canada—Steel Co. of Canada, Ltd., and Algoma Steel Corp., Ltd.—to plan "further steps" to win parity with U.S. pay levels.

Kaiser Contract ...

. . . with UAW is revamped in line with employment cut. It may set a pattern for others.

Earlier this year Kaiser-Frazer Corp. cmployed 13,000 workers in its Willow Run plant. Then drastic cutbacks cost Kaiser the bulk of its aircraft contracts. On top of that, its automobile business went sour. Kaiser and its United Auto Workers (CIO) local faced a future with a force of 3,000 workers and a contract tailored to cover 13,000 (BW-Aug.29'53,p140).

This week, after quiet negotiations off and on since late June, Kaiser and UAW have come up with an amended agreement geared to reduced employment at Willow Run. The agreement has a special significance because it might serve as a pattern for similar adjustments in other plants, even in other industries, if employment figures shake down in 1954.

• New Contract-Kaiser's original contract with UAW provided for 80 full-time shop stewards—a number way out of line for a 4,000-or-less work force—and set up 17 classifications limiting employees to a certain type of work.

The corporation protested to UAW that these two contract provisions would make continued operations too costly. It asked for changes. UAW was cautious. But after a lot of discussion, it gave in on Kaiser demands.

The new agreement cuts the num-

ber of shop stewards about two-thirds, the amount of the drop expected in total employment. It also combines into one job classification all the wide variety of jobs formerly covered by 17. · Setting Precedent-The last concession by the union is the more important of the two-and the one most likely to be used as a precedent. What it means is this: Workers can be shifted from job to job on the assembly line in the future since they will not be restricted by classifications; where Kaiser frequently had to pay workers when they were idle in the past-because there was not enough work in their classification for an eight-hour day-the corporation will in the future be able to shift workers around to minimize if not end payments for idle time.



If Karl Wilhelm Scheele, brilliant Swedish chemist and discoverer of Chlorine, had envisioned only a fragment of the importance of this chemical to mankind, he might well have hung such a sign outside his modest eighteenth century pharmacy.

Scheele made his discovery during his analysis of manganese dioxide. He named it "Dephlogisticated Marine Acid Air," because he was a believer in the phlogiston theory of chemistry. His find remained a laboratory curiosity for years, and its identity as Chlorine and its remarkable potentials were not realized until about 1810 when it was proved to be an element.

Today, the vast influence of Chlorine on civilization is ever-widening. It is extensively used as a bleaching agent in textiles, paper pulp, and flour. It has been an important factor in raising the American standards of health through its use as a disinfectant in the processing and handling of foods, in general sanitation, water purification, and the treatment of sewage.

Its entry into the field of organic chemistry makes it important in a multiplicity of products including plastics, synthetic rubbers, solvents, vitamins, sulfa drugs and other medicines, nontoxic refrigerants, high-test gasolines, dyes, weed-killers, insecticides and innumerable chemicals.

Columbia-Southern, leading merchant producer of Chlorine, serves these many needs from plants at Barberton, Ohio, Corpus Christi, Texas, Lake Charles, Louisiana and Natrium, West Virginia.



COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY 420 FORT DUQUESNE BOULEVARD, PITTSBURGH 22, PA.

CHLORINE, ALKALIES AND RELATED PRODUCTS . OFFICES IN PRINCIPAL CITIES

How PUSH-BUTTON Produce



Machinery and Equipment to Help People



ALLIS-CH

GENERAL MACHINERY DIVISION

POWER Helps People More_Have More!

The Secret of Modern Mass Production as an Artist Might Picture It

The cars, television sets, food, furniture, clothing and other products you see here are not literally produced under one roof, but *all* are products of push-button power.

Today, in thousands of plants the mere touch of a finger on a button starts a motor, a machine or assembly line. The button is the *trigger* that releases electric power . . .

puts electricity to work. The source of that power is a steam turbine-generator unit like the one shown below.

This Allis-Chalmers generator, employing super-charged hydrogen cooling, is one of the most advanced machines yet devised for generating low-cost electricity for either factory or home use. At its place in the powerhouse, it works 24 hours daily producing electrical power, adjusting its output as needed to keep wheels of industry turning and to meet countless community demands.

It's a fact that our standard of living depends on push-button power. And in power plants across the nation Allis-Chalmers equipment is helping produce the pushbutton power for factory, farm and home that asserts our continued good living.



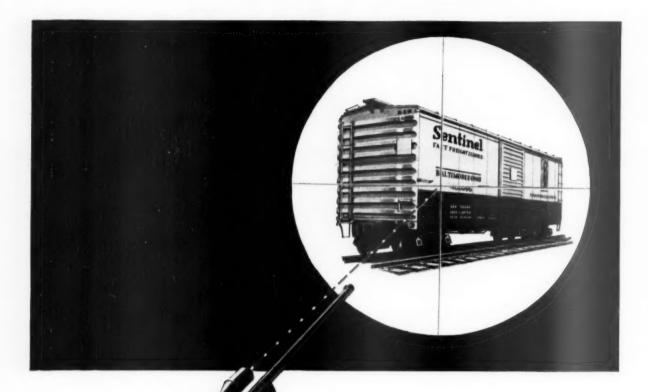
Produce More-Have More-LIVE BETTER!

ALMERS



C 5433

PLANTS IN: MILWAUKEE, WIS. - PITTSBURGH, PA. - NORWOOD, OHIO - BOSTON, MASS. - TERRE HAUTE, IND. - MONTREAL, P. Q. - ST. THOMAS, ONT.



WE HAVE A "BEAD" ON YOUR CAR AT ALL TIMES

When you ship by B&O Sentinel Service, your carload of freight is constantly within range of our "sentinels." We tell you at once if its schedule is interrupted.

Through the "Automatic Records" feature of Sentinel Service, shipper and receiver are notified *automatically* if an interruption occurs—then advised again of reforwarding.

Because of its proved siding-to-siding dependability, too, Sentinel Service is acclaimed by shippers everywhere, and is growing more popular every day!

Even if your plant is not on B&O lines you can benefit, for Sentinel Service is applied to your cars while on B&O lines. Ask our man!

Baltimore & Ohio Railroad

Constantly doing things-better!



PERSONAL BUSINESS

BUSINESS WEEK OCT. 17, 1953



As an executive, you'd be wise to take a look at heart disease from the doctor's viewpoint. You'll probably find it a lot different from your own. And, if you fear heart trouble, it will give you encouragement.

One key fact stands out from a recent medical meeting in Houston (page 135): The medical profession is making far greater progress in its fight against heart trouble than laymen remotely suspect. They can almost foresee the day when they will be able to predict—and even, perhaps, prevent—heart disease.

Note these points that show the progress already made toward understanding and overcoming the disease:

The trend once was to think that middle-aged, middle-sized men got heart attacks more than any other group. Now a lot of doctors aren't so sure; too many signs point to an equal occurrence elsewhere.

One thing does look certain: If a man who has "never been sick a day in his life" gets a heart attack, it's likely to hit him harder than others. That's because he doesn't recognize the small pains that may precede the big attack.

Even so, 85% of those who get heart attacks recover so that there is no damage to the heart. About 10% have some damage, 5% get crucially ill or die.

Medicine has made big strides in detecting heart disease far in advance of a severe attack.

And once an attack occurs—predicted or not—the patient no longer must cut his activities to the extent he once would. For example:

- Except for the first few weeks, bed rest isn't so necessary as once thought. A regular daily rest program is better.
 - Certain sports-like golf played in small doses-can still be enjoyed.
- A heart victim can now get back to work a lot sooner than was thought possible even 10 years ago. That's due mainly to shorter hours, and modern office conveniences that make life at work easier.

The immediate future looks bright for heart treatment. The doctors say that within the next decade it may be possible to do surgery on defective hearts discovered in adults (right now it's usually a last-resort operation for grown people).

Operations are already getting more routine with children, particularly "blue babies." And there has been a steady increase in the amount of successful surgery done on high-blood-pressure adults.

Anticoagulants are useful in the treatment of heart disease. Other than that, drugs play only a minor part. Most of the time, nature has to heal the heart and its arteries.

If you're worried about your heart, here's what the doctors urge you to do:

Get a complete physical examination—head to toe. Give the doctor a complete history of your various pains and illnesses. Ask him to take an electrocardiogram, and a fluoroscope or an X-ray.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK OCT. 17, 1953

With these things, a doctor can accurately tell the condition of your heart.

Once he gives you his advice, follow it. If he says: "no tennis, but nine holes of golf," don't decide that means 18 holes.

If he gives you a diet for hypertension, don't ignore it. Avoid overweight anyway—extra fat means extra work for your heart.

Your doctor will give you a diet if you get hardening of the arteries (arteriosclerosis)—because this increases blood pressure.

But he will worry more about you if he finds you have atherosclerosis—a thickening of the inner artery wall that narrows the channel. This is what leads to thrombosis, the most serious of all heart diseases.

Remember that many doctors think that the apparent frequency of heart attacks is due mainly to the fact that other diseases no longer kill us off earlier.

In fact, your life will be an average of 21 years longer than it would have been 50 years ago.

It's time to start checking on your dependent's earnings for this year. Remember that if he makes even a cent over \$600, you can't get him as a tax exemption.

This was pinned down in a recent tax court case. A man had taken his medical-student son as an exemption, even though the latter earned \$31.68 over the limit. The taxpayer claimed this was cut to less than \$600 by a \$65 depreciation deduction on his son's instruments and books.

The court disallowed the exemption. Gross income as defined in the code, it said, makes no allowance for depreciation. The taxpayer argued that this part of the law wasn't based on reason, since one cent either way could make a difference in whether or not an exemption was allowed.

The court replied that exemptions are allowed by legislative grace. It cannot weight the reasonableness of the figure set by Congress.

But note this: If your dependent is going over the limit make sure he goes well over. Say you are in the \$24,000 to \$28,000 tax bracket. The \$600 dependency exemption would be worth \$288 to you.

If your son earns more than \$600, you should get him to try to boost it to at least \$942. Only with that much can he offset his loss to you as an exemption—and pay his own income tax as well.

Note for your calendar: Quarterly payment of social security tax for domestic help is due Oct. 31.

Get busy now if you're sending Christmas gifts to anyone in service overseas. Parcels for Japan, Korea, and other Pacific areas should be mailed by Nov. 1. For other areas, Nov. 15 is the deadline.

Air parcel post can go out as late as Nov. 25. Note that packages going by air must be limited to 30 in. in size, and 2 lb.

Contents copyrighted under the general copyright on the Oct. 17, 1953, issue-Business Week, 330 W. 42nd St., New York, N. Y.





NYB&P INDUSTRIAL RUBBER GOODS

NEW YORK BELTING & PACKING CO. 1 Market St., Passaic, N. J.

America's Oldest Manufacturer of Industrial Rubber Products





Investigate our tough homogeneous gasket materials.

Write Dept. B.

ROGERS CORPORATION GOODYEAR, CONNECTICUT



NO. 50 WARDROBE RACK

In churches, schools, clubs, hotels, restaurants-wherever groups gather— Checker-50 Wardrobe Racks answer the wraps
problem. Only 5 ft. long,
each provides for 50 coats
and hats. Available on large
rubber casters—they go where
needed. Light, strong rigid welded steel for lifetime service. Sold by leading suppliers of institutional equipment and furniture



Write for Catalog CK-6 VOGEL-PETERSON CO.

See Clues on page 198

WHAT IT'S ABOUT



Debt: Key to Home Building

Home mortgages are never joys to have around, but today's mortgages are much easier to live with than those of 25 years ago. That's the big reason why so many Americans are homeowners today-and why home builders have had no difficulty selling around a million a year since the end of the war.

Today's houses, like automobiles, are in fact bought on the installment plan with relatively low down payments. Mortgage debt has become a major part of the country's total private debt. Home mortgage debt, now totaling around \$60-billion, compares with consumer debt at \$26-billion, corporate debt of \$170-billion.

Since the end of the war, mortgage debt has been skyrocketing. Today's total more than triples the \$17.6-billion outstanding in 1945. Even so, bankers aren't alarmed. They think mortgage payments are well in line with effective income of home buyers.

The fact is, it's the mortgage that makes home building boom-and home building has become almost essential to continued U.S. prosperity.

· As It Was-Prior to the 30s, it was a rare mortgage that did not hang like an ax over the neck of the debt-encumbered homeowner. In those days, mortgages almost without exception were of the old-fashioned so-called

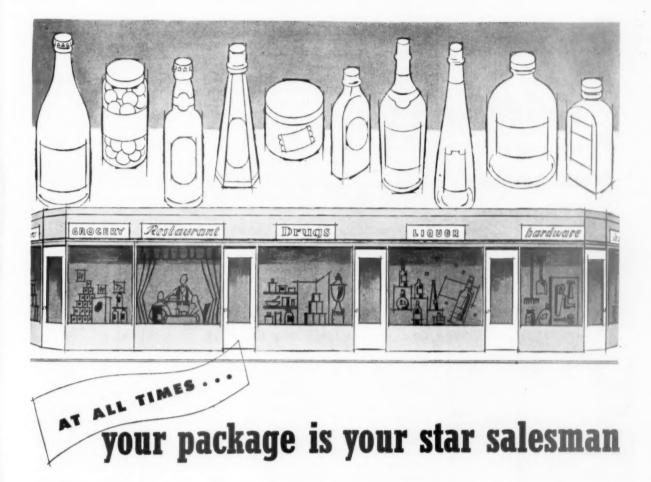
"term" variety that is now considered antique if not obsolete.

A "term mortgage" was essentially a short-term loan, secured by a house. A typical loan ran for three to five years. A borrower buying a \$5,000 house might have to put \$2,500 down, and he would be doing well if he could get a loan for the balance for the five-year period. He paid a straight interest rate of, say, 6%-and at the end of the fiveyear period he was obligated to pay off the principal in one lump sum unless he could persuade the lender to renew or could find another lender to refinance the loan (with extra costs and legal fees).

· But Now-Today, you get a selfamortizing mortgage that may run 15 to 25 years. Most of the new homes bought during the New Deal and postwar periods were financed at around 4% to 5%. Today, rates are a little higher, due to the tight money market.

There's been a change from the lender's standpoint, too. In the old days his only recourse was in his right to foreclose. Now a big chunk of the \$60-billion outstanding home mort-gage debt-about 40%-carries the added protection of Federal Housing Administration insurance or Veterans Administration guarantee of repayment.

By and large, it was the depression



The amount spent annually for packaging is variously estimated between 7 and 10 billion dollars. This is, of course, due to the increased recognition, by major executives, that good label and package design, good cartons and shipping cases are essential to the protection of the product until it is in the hands of the final user.

With the steady growth of the chain store and supermarket, your package becomes more and more your star salesman. Here, a messy label, a faulty carton or a broken shipping case can put you at a decided disadvantage with your competition.

Packaging is one of a hundred industries in which Arabol is privileged to serve the leaders. In 68 years, we have developed more than 10,000 adhesives formulas in our

five laboratories. Our experience includes adhesives for every type of bottle-labeling machinery, including the most modern. Yet we firmly believe that there is only one adhesives formula that can serve you best, in each particular application. Since the amount spent for adhesives can hardly exceed 3% of your total packaging costs, it follows that you can afford adhesives made to your own needs.

We invite the opportunity to submit adhesives samples for you to test in your own plant — under your particular working conditions — for your specific requirements, whatever their nature. That is the one kind of testing that assures you of satisfactory results. Your inquiry to Department 84 will bring a prompt response.



THE ARABOL MANUFACTURING CO.... a nationwide organization serving major users of industrial adhesives

EXECUTIVE OFFICES: 110 E. 42nd ST., NEW YORK 17, N.Y. - CHICAGO - SAN FRANCISCO - LOS ANGELES - ST. LOUIS - ATLANTA - PHILADELPHIA - BOSTON - PORTLAND, ORE. - ITASCA, TEX. - LOHDON, ENG.

It is Easy

to get rid of **Metal Address** Plates



Because any typist with any standard typewriter can stencil your addresses in Elliott Address Cards.

And a \$250.00 Elliott Addressing Machine will automatically feed and address your forms at a speed of 125 different addresses per minute.

Your employees will thank you for giving them quiet, fast, light work that they can do with clean

And your \$ savings on labor and material will amaze you.

Ellio MACHINE CO.

Dept. H, 151 Albany St., Cambridge, Mass. with 47 Branch Offices in the

U. S. A.

and the government's plunge into the mortgage situation that brought on all these changes.

• Monthly Payments-The government rules shifted home-financing habits almost completely to the installment plan of monthly mortgage payments. Each payment includes a partial pay-off on the principal, along with prorated monthly sums for interest and sometimes also for taxes and hazard insurance on the property. For the in-debted householder it's much like paying a fixed monthly charge for water or other utility service-the bill is bigger, but just as regular. As the debt is reduced, the interest component in the monthly payment decreases, and more money out of the flat monthly check goes for principal.

The steady amortization improves the security of the loan month by month. That's particularly important for so-called conventional mortgages, where the lending institution makes the loan directly to the homeowner without government insurance or guarantee. About \$35-billion of our home mortgage debt is written in that conventional way.

Until the big depression, only the savings and loan people were pushing level-payment amortization. But it has caught on like wildfire since the Home Owners Loan Corp. and the Federal Housing Administration made it a standard requirement for their insured mortgages in the 30s.

· Cushion-For the whole business economy, as well as for the individual mortgagor, the pay-as-you-go monthly reduction plan is both a prop and a

General adoption of level-payment amortization has pretty well wiped out the old foreclosure threat that used to hang over all mortgaged properties, particularly in a severe depression. Actually, in the old days, mortgage renewals were common, most often without any reduction of principal. But when money became a bit tight-even though general business was reasonably good-foreclosures popped up all over the place.

Under the monthly reduction plan, even conventional mortgages have the advantage of a steady whittling away of the residual debt. Holders of these mortgages are more likely to let jobless homeowners hang on with lowered or temporarily suspended payments than to force forcelosures that would throw the properties on a depressed market.

· Postponement-In any real depression, mortgaged homes in the big group under government insurance or guarantee would get special consideration from Washington. FHA rules already allow a mortgage holder to delay foreclosure until 12 monthly payments have lapsed, and under the law the commissioner may-and sometimes does-extend that period. Even a serious slump might require no new legislation for government-backed mortgages.

· Varieties-For home buyers, the level-payment plan is now general, but you have a choice of several varieties. Of course, if you belong to the happy minority with ample cash in the bank, you may not want any of them. Two out of every 10 home buyers still lay out cash in full.

If you have a little less cash, you can sign up for a conventional mortgage that probably calls for a 40% down payment. If you can't make it on your own, you might be able to float a second, or junior, mortgage at a higher, but still legal interest rate. (To do that in these days you or the seller must have solid connections with a good

money source.) • Veterans-If you're a veteran of either World War II or Korea, you can get a home loan guaranteed by the government. Only 3-million veterans have exercised this right: 10-million others retain it. The Veterans Administration guarantees the lender against loss on 60% of the loan, up to a maximum guarantee of \$7,500. That allows full 60% guarantee on a mortgage of \$12,-The lender can make a 100% loan by assuming only 40% of the risk.

Congress has removed all Korean emergency requirements on GI down payments. A veteran can buy a home with no down payment today, if he finds a lender who will make a 100%

· Ratios-Most state laws allow regulated institutions to loan up to twothirds of appraised value. The same applies to banks and trust companies having federal deposit insurance. Federal savings and loan associations can make loans without government guarantee or insurance up to 80% of appraised value.

Nonveterans can't do quite so well as vets on loan ratios. An owner who is occupying or will occupy a house can get an FHA-insured loan on 95% of the first \$7,000 of appraised value and on 70% of the balance up to a maximum insured loan of \$9,450. Any buyer can get 80% on a single-family house up to a total loan amount of \$16,000.

• Differences-Lower interest rates on government-backed loans make them harder to get. Permissible rate for both FHA and VA is now 41%, with an FHA-insured loan carrying an additional 1% insurance premium on the declining balance. Conventional loans run from 1% to 11% higher.

Maturities normally are shorter for conventional loans-mostly 12 years to 15 years. Permissible term for government-backed mortgages is now 25 to 30 years, but it's almost impossible to get a term that long in most places.

saves as it serves . . .

THIS KIND OF

Automatic TEMPERATURE

ACTUALLY PAYS FOR ITSELF!





Every building presents a different temperature control problem. So does its heating, cooling, ventilating or air conditioning system. That is why a truly efficient system of automatic temperature control must meet the individual needs of each particular installation.

PLANNING AND INSTALLING PAYS OFF

For over 60 years, Johnson has manufactured, planned and installed every one of its automatic temperature control systems to meet the exact requirements of each building served. Thus, Johnson Control automatically produces maximum comfort and convenience at the lowest possible operating cost. Johnson Control saves as it serves—quickly pays for itself in fuel savings alone!

MAKES JOHNSON FIRST CHOICE

This makes Johnson Control first choice in all types and sizes of buildings everywhere—in textile mills, food and chemical processing plants, office buildings, schools, hospitals, apartment buildings, hotels, shopping centers and airports, to name just a few.

IN BUILDINGS EVERYWHERE

Whether yours is a new or existing building, large or small, Johnson experience is at your command. Any problem of temperature, humidity or air conditioning control is best solved by Johnson, the *only* nationwide organization devoted exclusively to manufacturing, planning and installing automatic temperature control systems.





Let an experienced engineer from a nearby Johnson Branch prove to you the advantages of Johnson Control for your building. Johnson Service Company, Milwaukee 2, Wis. Direct Branch Offices in Principal Cities.



JOHNSON Automatic Temperature and
MANUFACTURING - PLANNING - INSTALLING - SINCE 1885 Air Conditioning CONTROL

Made to perform a service... never to meet a price, it handles better in the shipping room, gets your goods to destination safely. Call your local

THE GUMMED PRODUCTS COMPANY . TROY, OHIO

IDEAL XMAS GIFTS FOR YOUR BUSINESS FRIENDS



Metal Arts Advertising Specialties

Give your business friends a Christmas gift of lasting remem-brance—an attractive, useful advertising specialty from Metal Arts bearing your advertising message, seal or trademark. Hundreds of suggested items to choose from, including smartly styled letter openers, ash frays and memo pads... all made of solin-smooth broaze by skilled Metal Arts craftsmen. Each one is individually gift-boxed, ready for mailing.

sing, See your local advertising specially jobber, or write today r catalog showing our complete line of business gift sug-

METAL ARTS CO., Inc. 742 Partiand Ave., Rochester 21, N.Y., Dept. 16

WORLD'S LOWEST-COST TRANSPORTATION

2 great new ELECTRIC

AUTOETTE Fickup Trucks

Ideal for all types of light hauling in industrial plants... warehouses. resort hotels... movie lots... golf courses and ranches.

Powerful. Dependable. Economical.

Costs only 3 cents o day for 12 hours of hauling — 30 miles of travel. Less than a dollar a month . . \$10.00 a year . . 1/5 cent per ton-mile!

Write for complete information and name of nearest AUTOETTE Dealer,

AUTOETTE . Dept. 1206 545 W. Anahrim . Lung Brach . California

You advertise in Business Week when you want to influence Management Men





New oil wells are dotting the tidelands as drilling platforms, men, and



... the rich submerged oil fields. The greatest activity in the Gulf of

Hunt for Undersea

Last week, Secretary of the Interior Douglas McKay took a quick tour of the tidelands oil areas. Mostly, he was doing some basic away-from-home work on an area that may produce the toughest problems he has to deal with. At the same time he was getting a first look at some fairly bustling activity that has followed Congress' decision to renounce federal rights to oil inside the traditional seaward boundaries of the

The Secretary took off from Lafavette, La., and visited drilling operations at Grand Isle and Eugene Island, in the now state-controlled area. Then he voyaged out 30 miles, to look over the fields still owned by the govern-

• The Limits-Under the terms of the recent tidelands law, Louisiana, Florida, and California own the oil to the three-mile limit. Texas, another state with known offshore deposits, controls





machinery start seeking out and tapping . . .



Mexico is now off the coast of Louisiana.

Perks Up Despite Hazards

to the 10.5-mile limit, under the old treaty by which it annexed the U.S., so Texans say. From there on out to the edge of the continental shelf, the federal government still claims sway.

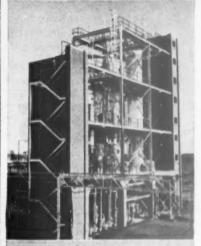
federal government still claims sway.

There's a good deal to be seen in most of the tidelands regions. The stress is still largely on exploration, after the long do-nothing period when nobody knew who would rule the tidelands, and even existing leases were questionable.

Texas has already held its first sale of offshore leases, and is planning to put up another 500,000 acres Dec. I. In Louisiana—miles ahead of Texas in tidelands exploitation and likely to stay there for some years—actual drilling is under way, with a good deal more planned.

In the port cities, there's an activity to be seen that is perhaps even more meaningful. Shipyards are hard at work on drilling equipment at New Orleans,





... for the Chemical Industries

Whatever your process engineering problem — you can rely on VULCAN'S experience in any or all of the following fields:

- Preliminary evalution
- Development & pilot plants
- Process design & engineering
- Project engineering
- Mechanical engineering
- Procurement
- Construction
- Initial operation

ESTABLISHED



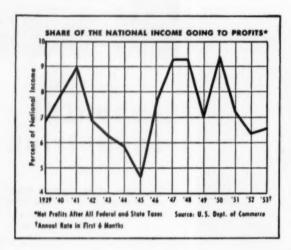
VULCAN

ENGINEERING DIVISION

CINCIN NATI

The first of two articles on profits

PROFITS...How High Are They?



How high are profits? What is being done with them? This is the first of two articles designed solely to throw some factual light on these key economic questions.

One of the important economic developments of 1953 has been a substantial increase in the dollar volume of corporation profits from the level of 1952. But to answer the question "How high are profits?" we must also measure them: 1) by comparison with the record of previous years, and 2) as a share of the total national income. The term "profits," as used here, refers to profits after taxes. These are the only profits that can be paid to stockholders or retained for use in the business.

In the first six months of 1953, corporate profits after taxes were at an annual rate of

\$20.4 billion. This was higher than in the first half of 1952, but lower than in the full years 1948 or 1950, or in the first half of 1951. If allowance is made for the declining value of the dollar, this year's net profits for all corporations represent less purchasing power than those made five or six years ago.

Here is the record of profits over the years:

		s After Taxes 3. Corporations
	Billions	of Dollars
	Actual	In 1953 Prices
1929	8.4	14.6
1939	5.0	9.8
1947	18.5	22.1
1948	20.7	22.7
1949	16.3	18.3
1950	22.7	24.6
1951	20.1	19.7
1952	18.6	18.7
1953*	20.4	20.4

*Annual rate, first six months

The record shows that real profits have a little more than doubled since 1939. This increase, however, does not mean that corporations are doing exceptionally well. The entire national income has doubled since 1939. And our industrial plant is more than twice as large as it was in 1939. Therefore, profits have just about kept pace with industrial growth.

Return on Investment

How high are profits compared with sales, or compared with the stockholders' investment?

What is the rate of return to the people who have invested their savings in corporate business?

The table below shows that for the past three years the rate of return on both sales and investment has been substantially below the return achieved in earlier postwar years. The rate of return on stockholders' investment is higher now than it was in 1939. But this is primarily because today's profits are reported in terms of today's prices, whereas much of the investment in plant facilities is still carried on the books at prewar prices, which are substantially below the cost of replacement. The current rate of return, measured as a percentage of total corporate sales, is below prewar levels.

	Corporate Pro	fits After Taxes
	Per Cent of Total Sales	Per Cent of Stockholders' Equity *
1929	6,1	NA
1939	4.1	4.0
1947	5.3	
1948	5.3	14.8 average
1949	4.4	14.5 average
1950	5.3	,
1951	4.1	11.8
1952	3.6	10.3
1953#	3.7	10.8

* Manufacturing corporations only

NA Not available

Annual rate, first six months

In considering these figures, it should be remembered that they are averages for all corporations. Some companies make more than the average, and many make no profit at all. In every year since 1915 at least 25% of all corporations have operated at a loss. In 1939, 58% of all corporations were losing money. This year the figure will probably be at least 30%. The improvement since 1939 shows a much healthier economy. But it does not indicate that profits are easy to make.

How Big a Share of the Pie?

The most important single fact about profits is that they now represent a *smaller* share of national income than they have in past years of normal prosperity. For the past three

years, profits have taken a smaller share of the pie than in 1939, and considerably smaller than in the early postwar years. Here, as the chart at the beginning shows, is the record:

	Corporate Profits After Taxes as a Percentage of National Income
1929	9.6
1939	6.9
1947	9.3
1948	9.3
1949	7.5
1950	9.4
1951	7.2
1952	6.4
1953*	6.6

*Annual rate, first six months

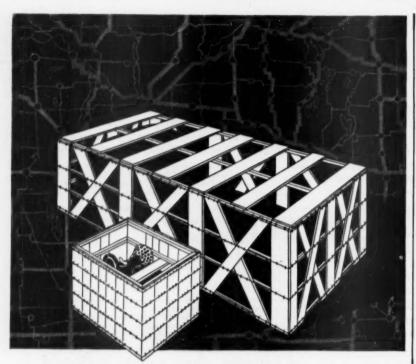
The main reason for the declining corporate share of national income is, of course, the increasing share taken by the federal government in the form of taxes. The wage earners' share is also higher than in 1939. But the really startling increase is in federal taxes. Taxes on profits now equal almost 8% of the national income, compared to only 2% in 1939.

Why This Is Important

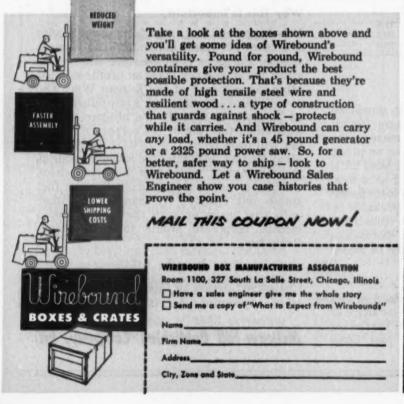
It is important that these facts about profits and taxes be widely understood. At its next session, Congress must consider what to do about the emergency taxes on profits enacted after the outbreak of the Korean War. The so-called excess profits tax is scheduled to die on January 1, 1954. In the absence of new legislation, the rate of the corporate income tax will drop from 52% to 47% on April 1. Many factors, including the revenue needs of the government, must enter into the decision whether or not to reduce taxes. But one fact stands out clearly: By comparison either with past years or with the total national income, corporate profits today are relatively low.

The second article in this series will discuss what corporations do with their profits.

McGraw-Hill Publishing Company, Inc.



45 pounds or 2325 pounds No matter where they're bound SHIP THEM WIREBOUND!



". . . until these suits are settled, leases will be somewhat tentative . . ."

TIDELANDS OIL starts on p. 190

Houston, Beaumont, and other points. New rigs-mostly fabulously expensivehope to extend the now limited depth

range of drilling.

• Legal Attacks—There's also activity in many courts, government offices, and other quiet spots. The Eisenhower Administration, which plumped firmly for tidelands renunciation, now goes on the assumption that the old dispute is settled, with the states in full control. But many states that have no tidelands view this far from brightly. Arkansas and Alabama have already filed suits aimed at returning the tidelands to tederal control. At least three other states have announced plans for similar suits.

Stripped of infinite complications, their argument is that the tidelands oil belongs to all the people and should be managed for the benefit of all the states, not just those fortunate enough to abut on submerged oil deposits.

Until these suits are settled once and for all, leases and other transactions concerning the tidelands will be somewhat tentative, though a lot firmer than anything achieved before Congress acted last spring. This tentative quality is one of several big factors that account for the relatively modest amount of activity that was loosed by the tidelands law.

• Clarifications—The Interior Dept. is doing its best to clear things up, especially in the areas still owned by the government. There, it is authorizing companies to go ahead with explorations, leaving the legal formalities to be tidied up later. Off Texas, it has even turned over to the state the job of regulating geophysical work clear to the continental shelf. And it is prepared to offer new federal leases in exchange for some issued earlier by the states for areas now definitely in the federal bailiwick.

Closer inshore the legal situation is bound to remain muddy until all the suits have been settled. For one thing, there is some \$62-million of royalties now held in escrow, which cannot be distributed to the states. That means that California can't touch \$47-million, Louisiana \$15-million, Texas \$1-million, for the use of which state agencies are clamoring loudly.

Even the boundaries of the statecontrolled areas have hidden legal reefs in dire need of charting. Thus Louisiana doesn't know from what point to start measuring its three-mile strip. The state would like to stretch those three miles



The need for blood is greater than ever, not only for men wounded in combat, but here at home . . . to cure disease, to meet accidents and disasters, and to prepare for civil defense.

Our quota can ONLY be met, if those who give keep on giving . . . regularly!

You CAN give more than once . . . as often as every three months with complete personal safety. The more often you give the more often you save a life. For every pint of blood you give goes to someone who needs it desperately.

Remember . . . once is NOT enough. Give blood again and again! Call your Red Cross, Armed Forces or Community Blood Donor Center for an appointment to give blood today.

GIVE BLOO

... give it again and again

CHECK THESE QUESTIONS

If you can answer "yes" to most of them, you-and your company-are doing a needed job for the National Blood Program.

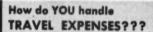
- HAVE YOU GIVEN YOUR EMPLOYEES TIME OFF TO MAKE BLOOD DONATIONS?
- HAS YOUR COMPANY GIVEN ANY RECOG-NITION TO DONORS?
- DO YOU HAVE A BLOOD DONOR HONOR
- HAVE YOU ARRANGED TO HAVE A BLOOD-MOBILE MAKE REGULAR VISITS?
 - HAS YOUR MANAGEMENT ENDORSED THE LOCAL BLOOD DONOR PROGRAM?
 - HAVE YOU INFORMED EMPLOYEES OF YOUR COMPANY'S PLAN OF CO-OPERATION?
- WAS THIS INFORMATION GIVEN THROUGH PLAN BULLETIN OR HOUSE MAGAZINE?
- HAVE YOU CONDUCTED A DONOR PLEDGE CAMPAIGN IN YOUR COMPANY?
- HAVE YOU SET UP A LIST OF VOLUNTEERS SO THAT EFFICIENT PLANS CAN BE MADE FOR SCHEDULING DONORS?

Remember, as long as a single pint of blood may mean the difference between life and death for any American . . . the need for blood is urgent!



NATIONAL BLOOD PROGRAM





RACINE, WISCONSIN

Commercial Solvents, Diamond Alkali, Binney & Smith, scores of leading corporations, for years have used TRAVELETTERS because they

- ELIMINATE expense checks
- IMPROVE expense procedure
- LESSEN internal costs
- **CONTROL** travel expenses
- ✓ INCREASE productive time MINIMIZE cash advances

You'll be amuzed at the advantages your company and traveling person-nel will enjoy by using TRAVELETTERS! Write for information.

TRAVELETTER CORPORATION Since 1894 GREENWICH, CONN.



2. Linear

1. Rotary

01953



. . . wildcatters and independent oil men have generally stayed away . . ."

TIDELANDS OIL starts on p. 190

a long way, for some of the most productive fields lie outside the limit, and are now covered by somewhat tainted state leases. There's another row between Texas and Louisiana. Texas says the interstate line runs down the middle of the Sabine River; Louisiana claims it's on the west bank. One way or the other, it projects out into the tidelands.

· Heavy Costs-If all these legal complications didn't serve as a brake on tidelands development, the harsh facts of economic life would. Drilling offshore is immensely expensive. Engineers in the industry figure that tidelands drilling costs from three to 10 times as much as equivalent work on dry land.

This factor pretty well accounts for the fact that wildcatters and independent oil men have generally stayed away.

The roster of companies that hold tideland leases reads like the who's who of the industry. The list includes The California Co. (producing unit for Standard Oil of California), Shell, Cities Service, Phillips Petroleum, Sun Oil, Humble, Stanolind, Pure Oil, Ohio Oil, Kerr-McGee, Magnolia, Continental Oil, Superior, Tidewater, and Melben Oil Co.

· Slow Return-Small companies face a double cost squeeze: Not only is the capital requirement high, but the pay-off is likely to be slow. Take a look at the figures. Oil economists say that from the time work started in the Louisiana and Texas tidelands up to Sept. 1, 1953, some \$24-million was spent. For all that money, the companies produced only \$50-million worth

of oil.

The National Petroleum Council has some equally discouraging figures. NPC says that if the inducements are high enough, tidelands production in five years will be boosted to around 170,000 bbl. to 200,000 bbl. a day, plus 600-million to 800-million cu. ft. of natural gas. Altogether, that's a modest 2% or 3% of U.S. crude production. The sad news comes in the cost. At least one expert says it would take \$1.5-billion to get production up to this level.

· Machinery-The equipment headaches are anguishing. It's no mean stunt to design rigs strong enough to withstand wind and waves, and able to house crews and equipment economically. The present 60-ft.-under-water limit for practicable drilling rules out vast areas of the tidelands area, which has depths up to 600 ft. at the outer edge of the continental shelf. Of the



fellow afraid of?

We believe Mr. Malenkov and his friends, when measuring us, are concerned with something a lot less dramatic, but perhaps more important, than most people think.

We don't believe they spend nearly as much time counting our bombs \dots as they spend counting our kilowatts.

Surely there just can't be any doubt that America's powerful punch is our ability to produce goods. In overwhelming, never-ending, suffocating quantities. And behind every article or service we perform is *power*.

There's a relatively small community of men who create and deliver that power wherever it is needed.

There are the engineers who design and construct the huge power plants we call utilities . . . the engineers who operate those utilities and send raw power on its way . . . the men in industry who receive it, sometimes make their own power, and always transform it into its many magic forms of heat, steam, motor power, cool air, and so on.

Lastly, there are the men who make the equipment that makes the power that makes the wheel turn.

The great, great majority of all these men have one habit in common. They read POWER magazine.

The reason they read it is that for more than 70 years it's been POWER's job to bring these men the latest news and finest details of their fast-moving field of work.

Because the power field, thank goodness, is fast-moving. In just 15 years we've put 2 more horsepower behind every worker in the United States. In those same 15 years the cost of energy has dropped by 21%.

That's why it behooves most management men to ask questions and get advice about their own plant's power network. Are you sure it's as modern and efficient as it should be?

Your power engineer knows. Better ask him.



One of America's primary industrial media and a member of the Audit Bureau of Circulations

RAW-HILL . . . ABP

TO THE SOLUTION OF-

MANAGEMENT MEN'S PROBLEMS.

Published every week—closes 12 days in advance. Rate—\$5.00 per line (\$2.50 per line for positions wanted ads), minimum 2 lines. Allow 5 average words as line; count 2 words for box number. Write for special rates for Business Services advertisements. Address box number replies c/o BUSINESS WEEK to the office nearest you. NEW YORK, 330 W. 42nd St., CHICAGO, 520 N. Michigan Ave., SAN FRANCISCO, 58 Post St.

EMPLOYMENT

-Positions Vacant=

Area Accountant, permanent position for a man with heavy experience in customer accounting in the utility industry. Good educational background in accounting required; college degree desirable. We are a natural gas utility company engaged in production, transmission and distribution in four states. We offer a full program of employee benefits. Apply by mail to: Southern Union Gas Company, Burt Building, Dallas, Texas, Attention: Mrs. Singer.

- Selling Opportunities Offered:

National Distributor wanted for patented items in the low-priced field for household and commercial use. Items are tested and approved and have been marketed on a local basis. Excellent for department stores, hardware stores and specialty aslessman and mail order. Box 216, West Hartford, Connecticut.

Protected Territory Available Agents or Distr's selling industrials and contractors heavy-duty, portable oil fired-heater for loading docks, con-struction fols, warehouses, etc. A real money maker, Write Salesmanager, 2939 Broadstreet, Detroit 4, Michigan.

-Employment Service-

Ixecutives — Contemplating a change? Your personal requirements met thru our flexible procedures, with full protection of your present position. We have the know-how and nation-wide contacts to negotiate successfully for you. Details on request. Jepson Executive Service, (Est. 1939) 1022 Porter Hidg., Kansas City 2.

- Positions Wanted

fxec. Asst., Vet., Coll. grad., married, 29, exp. Dom. & Fgn. Acctg., Customer Relations, Secks career opportunity, PW-9459, Business Week. Purchasing Manager. Graduate Engineer, broad experience in engineering and purchasing, de-sires change, Resume, PW-9468, Business Week. Trade Association, Iconomist and administrator experienced as Washington, D. C. Representa-live open to appointment as executive secretary of manager of association, committee, or indi-dual industry office. Part or full-time; estab-ished Washington office. PW-9468, Business Wk. Industrial Engineer, 36, Ge Getter, Sales exp. apeaks Spanish, seeks return to Latin America. P.W. 3452, Business Week.

- Selling Opportunities Wanted -Manufacturers' Agents in St. Louis wants hard-ware or dis-casting line for aircraft automotive, and electrical customera. AAA customer list in Kansas City, Des Moines, Chicago & Minne-apolis. RA-9161, Business Week. Manufacturers Representative: Three graduate engineers 20 years established sales engineering experience New York Metropolitan area, want line power plant equipment supplementing ex-isting lines RA-9171, Business Week.

Sales Engineer 32 desires position as factory representative firm interested in expanding export resentative firm interested in expanding export trade Peru-Columbia. Eight yrs exp 80 Amer-ica. Fluent Spanish. Resume on request. RA-9445, Business Week.

Seasoned businessmen with ample capital desire exclusive representation or distributorship for nationally known product or products in New York metropolitan area. Must stand complete investigation. RA-9442, Business Week,

SPECIAL SERVICES

Complete Tooling programs performed on a firm price guaranteed basis. Excellent tool design staff plus 80 skilled tool and die makers at your service. Fast delivery. Large work a specialty. Mechaneers Incorporated, Municipal Airport, Bridgeport, Connecticut.

Notice to Bridge Engineers: Bids will be received on October 27, 1953 for engineering services in on October 27, 1953 for engineering services in connection with a double leaf bascule super-structure and supporting piers for a bridge over the Intracoastal Waterway near Charleston, S. C. Details may be obtained from the undersigned. C. R. McMillan, Chief Highway Commissioner, S. C. State Highway Department, Columbia, S. C.

- Registered Patent Attorney =

Patent Information Book, without obligation. Pat. Atty. & Advisor Navy Dept. 1930-47. Assoc. Examiner Pat. Off. 1922-29. Qustav Miller, Pat-ent Lawyer, 103 BW3 Warner Bidg., Wash. 4, D. C.

BUSINESS OPPORTUNITIES

Save up to 50% On Your Christmas Gift Requirements, Choose from over 1,000 nationally advertised items including Appliances, Benrus Watches, Parker Pen Sets, Evans Lighters, We have catered to business firms for over 29 years. Write For Our New Free Catalog! O. Faust, Dept. W-9, 223 N. 8th Street, Phila, 6, Past,

Franchise Open: New York City, Baltimore, Philadelphia, Cincinnati, Clevelanii, National Cor-poration will grant franchise to sales executive able to form and control \$35,000 local corpora-tion. Write W. B. Raymond, 1564 Northwestern Bank Building, Minneapolis 2, Minnesota.

INDUSTRIAL SITE

Looking for a New Industrial Location? We wel-come new Industry, For facts and figures—Tri-City Merchants Association, Inc. Washington Street, Leakaville, N. C.

KEEP "clues" in MIND WHEN LOOKING FOR:

- **Employment**
- Personnel
- Equipment
- Special Business Service

BUSINESS WEEK

Classified Advertising Division

330 W. 42nd St.-New York 36, N. Y.

". . . geophysical crews are roaming all through the 2.5-million acres . . ."

TIDELANDS OIL starts on p. 190

estimated 132,000 sq. mi. of the shelf in the Gulf of Mexico, only 14,000 sq. mi. lie at now attainable depths. Off California, a very small percentage of the 19,000 sq. mi. can be reached.

Some companies have plans for newtype barges that can function at depths up to 200 ft., but engineers shudder at the cost.

• The Plus Side-Against all these minus factors, the tidelands offer some pluses. For one thing, you can get large leases, usually 5,000 acres or more. The production allowables are higher. And up to now, the ratio of producers to total wells drilled has been higher in the tidelands than on shore.

Certainly, plenty of the big companies are finding the pluses sufficiently convincing. In Louisiana, The California Co. plans to drill six wells in the Main Pass field, and 10 in the Bay Marchand field. The company is reactivating two converted LST's to speed the program. Phillips and Shell are both building new drilling platforms, and Humble is expanding its activities. Meanwhile, geophysical crews are roaming all through the 2.5-million acres that the state has already leased to oil companies.

• Exploration-Texas is more largely in the exploratory stage. From the beginning of tidelands development to Sept. 1, the state's waters have seen only 16 wells drilled compared with 244 off Louisiana. Of the 16, one produced gas but isn't being tapped, one produced oil, but too little to pump, and 14 were dry holes. Still, 28 licensed geophysical crews are hopefully at work.

Leasing is proceeding briskly. In the first bidding, Stanolind's \$239,300 bid secured the four leases, a bonus rate of \$128 per acre. In the last previous leasing, in 1947, the average was \$20 an acre. At either rate, the state's coffers may be fattened nicely with 500,000 acres scheduled to go on the block Dec. 1, and another 2.5-million acres still untouched inside the state's jumbosized territorial waters.

• Watching-As for California, most oil companies seem to be adopting a waiting policy until all the legal tag ends of offshore oil are tied up. Humble Oil and Monterey Oil Co. are drilling a test well off Newport Beach, said to be the first started since the states were enthroned. Indeed, the State Lands Commission had before it no applications for new leases when it met in Los Angeles last week to consider possible changes in leasing policy.

ADVERTISERS IN THIS ISSUE

Business Week-October 17, 1953

ACME ALUMINUM ALLOYS, INC
ACME ALUMINUM ALLOYS, INC
CORP. 85 Agency—The Griswold-Eshleman Co. THE ADVERTISING COUNCIL 195 AIR ASSOCIATES, INC. 73 Agency—De Garme Inc.
AIR ASSOCIATES, INC
ALLIS-CHALMERS MFG. CO
AIR ASSOCIATES, INC. 73 Agency—De Garmo, Inc. ALLIS-CHALMERS MFG. CO. 180-181 Agency—Compton Adv, Inc. ALSYNITE CO. OF AMERICA. 95 Agency—The Phillips—Lamey Co. (CHEMICAL DIV.) 74 Agency—Ketchun, MacLeod & Grove, Inc. AMERICAN APPRAISAL CO. 176 Agency—The Hughen Co.
(CHEMICAL DIV.)
Agency Ketchum, MacLeod & Grove, Inc. AMERICAN APPRAISAL CO
AMERICAN BOTTLERS OF CARBONATED
Agency—James R. Flanagan Adv. Agency AMERICAN CYANAMID CO. 49
Agency—Hazard Adv. Co. AMERICAN HOIST & DERRICK CO154
AMERICAN TRANSAL CO. 176 AMERICAN SOTTLERS OF CARBONATED BEVERAGES
Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency Cunningham & Waish, Inc.
INC
EQUIPMENT CORP. 106 Agency—The Jaqua Cots, INC. 144 Agency—Vanisant, Inuciale & Co., Inc. F.E. ANDERSON OIL CO., INC. 52 Agency—Fuller & Smith & Ross, Inc. ANGIER CORP. 69
F. E. ANDERSON OIL CO., INC
ANGIER CORP
ANGIER CORP. 99 Agency—Larcon Randal APSO PRODUCTS, NG. 168 Access—Julian I, Besel & Assoc. 168 Access—Julian I, Besel & Assoc. 187 Access—Julian I, Bosel & Assoc. 187 Access—Julian I, Bosel & Assoc. 187 Access—Julian I, Bosel & Assoc. 187 Access—J. T. O'Connell Co. 187 Access—J. E. D'Connell Co. 187 Access—J. Enton & Rosley Inc. 187 Access—Benton & Rosley Inc.
ARABOL MFG. CO
ASSOCIATION OF AMERICAN RAILROADS. 15 Agency—Benton & Bowles, Inc.
Agency—Benton & Bowles, Inc. AUTOETTE Agency—West-Marquis, Inc. 190
Agency—Martin R. Kiltten Co., Inc.
Agency—The Richard A. Foley Adv. Agency, Inc.
MOSINEE PAPER MILLS CO.)122
BECHTEL CORP
AUTOETTE 190 Agency-West-Marquis, Inc. AVERY ADMESIVE LABEL CORP. 104 Agency-Martin R. Klitten Co. Inc. BALTIMORE & OHIO RAILROAD. 182 Agency-The Richard A. Foley Adv. Agency, Inc. BAY WEST PAPER CO. (DIV. OF MOSINEE PAPER MILLS CO.). 122 Agency-Klau-Van Pietersom-Dunlap, Inc. BECHTEL CORP. 147 Agency-Rylor & Ingram, Ltd. BELL AIRCRAFT CORP. 111 Agency Constock & Co. THE BERYLLIUM CORP. 58
THE BERYLLIUM CORP
Agency—Gray & Rogers BRAIMARD STEEL CO. 18 Agency—The Griewoold-Eshleman Co. 167 Agency—J. M. Mathes, Inc. 17 Agency—J. M. Mathes, Inc. 17 Agency—Kane Advertising 14
Agency—J. M. Mathes, Inc. BURGESS BATTERY CO. 171
Agency—Kane Advertising CARPENTER STEEL CO
Agency—Kane Advertising CARPENTER STEEL CO
Agency—Beamont, Heller & Sperling, Inc. CARRIEGE CORP. 93 Agency—N. W. Ayer & Son, Inc. CHEMICAL INDUSTRIES EXPOSITION CO. 54 Agency—O. 8. Tyson & Co., Inc. CHESAPEAKE INDUSTRIES INC
CHESAPEAKE INDUSTRIES INC
CHESAPEAKE A OHIO BALL WAY CO 42-43
CHICAGO & EACTERN III INDIA D D
Agency—Fuller & Smith & Ross, Inc. CHICAGO RAWHIDE MFG. CO. 20–21 Agency—Wesley Ares & Assoc, Inc. CITY BANK FARMERS TRUST CO. 149
Agency—Grimm & Craigle
Agency Grimm & Craigle CLUES (CLASSIFIED ADVERTISING). 198 COLORADO FUEL & IRON CORP. 197 Agency Dovie, Kitchen & McCormick, Inc.
Agency—Dovis, Kitchen & McCornick, Inc. COLSON CORP
COLUMBIA RIBBON & CARBON MFG. CO. 12
COLUMBIA-BOUTHERN CHEMICAL CORP 179 Agency - Ketchum, MacLeod & Grove, Inc.
Agency Batten, Barton, Durstine & Osborn, Inc.
Agency—Keneliffe, Breslich & Co.
Agency — Keneliffe, Breslich & Co. CROWN CAN CO. Agency — The Clements Co.
DACO MACHINE A TOOL CO
DACO MACHINE 4 TOOL CO
DACO MACHINE & TOOL CO
DACO MACHINE & TOOL CO. 126 Agency-Fred Wittner Adv. DAVISON CHEMICAL CORP. 99 Agency-8t, Georges & Keyes, Inc. DEARBORN CHEMICAL CO. 8 Agency-The Ruchen Co. 16
DACO MACHINE & TOOL CO. 126 Agency-Fred Withor Adv DAVISON CHEMICAL CORP. 99 Agency-8t, Georges & Keyes, Inc. DEARBORN CHEMICAL CO. 8 Agency-The Buchen, INC. 115 Agency-Charles & Kane Co. 115
DACO MACHINE & TOOL CO. 126 Agence-Fred Wittner Adv DAVISON CHEMICAL CORP. 99 Agence-8t. Georges & Keyns, Inc. DEARBORN CHEMICAL CO. 8 Agence-The Buchen S. INC. 115 Exercise Charles R. Raine Co. 173 Agency-Harten, Barton, Durstine & Osborn, Inc. DICTAPHONE CORP. 63
DACO MACHINE & TOOL CO. 126 Agency—Fred Wittner Adv. DAVISON CHEMICAL CORP. 99 Agency—St. Georges & Keyes, Inc. DEARBORN CHEMICAL CO. 8 Agency—The Ruchen Co. 105 DEMPSTER SHOTH ERS. INC. 115 DENNISON MANUFACTURING CO. 173 Agency—Hatten, Barton, Durstine & Osborn, Inc. DICTAPHONE CORP. Agency—Young & Rubicam, Inc. THE DeALL CO. 152
DACO MACHINE & TOOL CO. 126 Agency—Fred Wittner Adv. DAVISON CHEMICAL CORP. 99 Agency—St. Georges & Keyes, Inc. DEARBORN CHEMICAL CO. 8 Agency—The Ruchen Co. 105 DEMPSTER SHOTH ERS. INC. 115 DENNISON MANUFACTURING CO. 173 Agency—Hatten, Barton, Durstine & Osborn, Inc. DICTAPHONE CORP. Agency—Young & Rubicam, Inc. THE DeALL CO. 152
DACO MACHINE & TOOL CO. 126 Agence-Fred Wittner Adv DAVISON CHEMICAL CORP. 99 Agence-8t. Georges & Keyns, Inc. DEARBORN CHEMICAL CO. 8 Agence-The Buchen S. INC. 115 Exercise Charles R. Raine Co. 173 Agency-Harten, Barton, Durstine & Osborn, Inc. DICTAPHONE CORP. 63

EAGLE PENCIL CO
Agency—Hicks & Greist, Inc. 70
(EDIPHONE DIV.)
EBERHARD FABER PENCIL CO. 70 Agency—Hicks & Greist, Inc. THOMAS A. EDISON, INC. (EDIPHONE DIV.)
Agency—H. B. Humphrey, Alley & Richards, Inc.
Agency—The Bayless-Kerr Co.
Austry.—The Bayless Kerr Co. EVANS PRODUCTS CO. Agency.—Fuller & Smith & Boss, Inc. THE FAFNIR BEARING CO
Agency-Horton-Noyes Co. A. B. FARQUHAR CO
Agency—VanSant, Dugdale & Co., Inc. FIRESTONE PLASTICS CO
FISCHBACH AND MOORE, INC
Agency—Horton-Noyes Co. 175 Agency—VanNant, Duglale & Co., Inc. 175 Agency—VanNant, Duglale & Co., Inc. 55 Agency—Grey Adv. Agency, Inc. 50 FISCHBACH AND MOORE, INC. 80 Agency—Elritich & Newbirth, Inc. FOOD MACHINERY & CHEMICAL CORP. 22 144
FORT WAYNE CORRUGATED PAPER CO 94
FRIDEN CALCULATING MACHINE CO.,
FULLER & SMITH & ROSS, INC. 4-5 Agency—Fuller & Smith & Ross, Inc.
Agency-Fuiler & Smith & Ross, Inc. GAMEWELL CO
GAMEWELL CO. 54 Agency Sutherland-Abbott GENERAL AMERICAN TRANSPORTATION 69
GENERAL AMERICAN TRANSPORTATION CORP. 69 Agency—Welss & Geller, Inc. 69 Agency—Welss & Geller, Inc. 225 Agency—Batten, Barton, Durstline & Osborn, Inc. 7 HE B. F. GOODRICH CO. 1 Agency—The Griswold-Eshleman Co. 600DYEAR AIRCRAFT CORP. 14 Agency—Kudner Agency, Inc. 11 HE GUMMED PRODUCTS CO. 1500
Agency-Batten, Barton, Durstine & Osborn, Inc. THE B. F. GOODRICH CO
GOODYEAR AIRCRAFT CORP
A course History Wile control of A course
MEMCO MFG. CO
Agency—Howard Swink Advertising Agency, Inc.
Agency—Randolph & Elliott
Agency—Young & Rublesm, Inc. THE HYDRAULIC PRESS MFG. CO
Agency—The Jay H. Maish Co. INLAND STEEL CO160
HOSE AND SAUCH A Brandenburg HIGS AND SAUCH 112 Agency—Howard Swink Advertising Agency, Inc. A.C. HORN CO, INC. 151 Agency—Handolph & Elliott HOTELS STATLER CO, INC. 38 Agency—Handolph & Elliott HOTELS STATLER CO, INC. 38 Agency—The Jay II, Maish Co. IRLAND STEEL CO. 100 INLAND STE
1-T-E CIRCUIT BREAKER CO
JOHNS-MANVILLE CORP
Agency—Doremus & Co.
JUHNSUN SERVICE CU
JONES & LAMSON MACHINE CO
Agency—Street & Finney Adv.
Agency - VanAuken, Itagland & Stevens LEES-BRADNER CO. 90 Agency - Belden & Hickox LINK-BELY CO. 2 Agency - Klau - Van Pietersom Duniap, Inc. LURIA ENGINEERING CORP. 157 Agency - Storm & Klait, Inc.
LINK-BELT CO. 2
LURIA ENGINEERING CORP
LURIA ENGINEERING CORP
Agency—Posner-Zabin Advertising
THE MALAYAN TIN BUREAU 72 Agency—Gray & Rogers Adv. MANNING, MAXWELL & MOORE, INC. 108 Agency—Puller & Smith & Ross, Inc. MARCHANT CALCULATORS, INC. 57 Agency—Dorenus & Co., Ltd. MARINE OFFICE OF AMERICA. 60 Agency—Trince & Co., Inc. 150 Agency—Rick Co., Inc. 150 Agency—March Co., Inc. 150
Agency—Fuller & Smith & Ross, Inc. MARCHANT CALCULATORS, INC
Agency-Doremus & Co., Ltd. MARINE OFFICE OF AMERICA
THE MARLEY CO. 150
Agency Doromus & Co. Inc.
MeGRAW-HILL BOOK CO. NC 174 MERCURY MFG. CO. 148 Agency O'Grady Anderson Gray, Inc. METAL ARTS CO. INC. 190 Agency Hutchins Adv. Co. Inc. MODERN PLASTICS 119
Agency—O'Grady-Andersen-Gray, Inc. METAL ARTS CO. 180. Agency—Hutchins Adv. Co., Inc. MODERN PLASTICS Agency—Media Promotion Org., Inc. 119 Agency—Media Promotion Org., Inc. MONARCH ALUMINUM MFG. CO. 141 Agency—Lang. Fisher & Nashower, Inc. MONARCH MACHINE TOOL CO. 121 Agency—Kircher, Helton & Collett MCNSANTO CHEMICAL CO. 45 Agency—Gardner Adv. Co. NATIONAL CASH HEGISTER CO. 2nd Cover
MONARCH ALUMINUM MFG. CO
MONARCH MACHINE TOOL CO
Agency—Gardner Adv. Co
Agency—Kircher, Helton & Collett McNSANTO CHEMICAL CO. 45 Agency—Gardner Adv. Co. 45 Agency—Gardner Adv. Co. 2nd Cover Agency—McCann-Erickson, Inc. NATIONAL MALLEABLE & STEEL CASTINGS 36 ANTIONAL MOTOR SEASING CO. 18C. 81
CASTINGS
NATIONAL MOTOR BEARING CO., INC 81 Agency—I. C. Cole Co.

NEW YORK BELTING & PACKING CO 185 Agency—Fletcher D. Richards, Inc.
NORTH AMERICAN PHILIPS CO
MONTHERN STATES BOWER OF
Agency—Campbell-Mithun, Inc.
Agency—Pacific National Adv. Agency ONE ON LUMBER CO
Agency—Pacific National Adv. Agency JOHN OSTER MFG. CO
Agency—Klau-Van Pietersom-Dunlap, Inc. PAILLARD PRODUCTS, INC
Agency Anders Associates
PANGBORN CORP. 82 Accord Variable & Co. Inc. PATERSON PARCHMENT PAPER CO. 142 Agency - Flatt, Saclary & Button, Inc. PEERLESS STEEL EQUIPMENT CO. 148
PATERSON PARCHMENT PAPER CO
Agency-Platt, Zachary & Sutton, Inc. PEERLESS STEEL EQUIPMENT CO
PERMACEL TAPE CORP
Agency—The Altkin-Kynett Co. PERRYGRAF CORP. 176
PHILLIPS PETROLEUM CO
Agency—Lambert & Feasley, Inc. PITTSBURGH CORNING CORP
POWER 197
POWER 197 PULLMAN-STANDARD CAR MFG. C6 91 Agency—Fuller & Smith & Ross, Inc. RAILWAY EXPRESS AGENCY. 53
RAILWAY EXPRESS AGENCY 53 Agency—Fuller & Smith & Ross, Inc. RAYBESTOS-MANHATTAN, INC. 51 Agency—Gray & Rogers
RAYBESTOS-MANHATTAN, INC 51
Agency Gray & Rogers REVOLVATOR CO
Agency—La Porte & Austin, Inc.
Agency—Raigh E. Burt Assoc. ROGERS CORP. 186
Agency—The Charles Brunelle Co.
Agency John Falkner Arnelt & Co. Inc.
Agency—John Falkner Arndt & Co., Inc., SELAS CORP. OF AMERICA
SHAKEPROOF DIV. OF ILLINOIS TOOL
SHAKEPROOF DIV. OF ILLINOIS TOOL WORKS 4th Cover Agency—Waldle & Briggs, Inc. THE SHEFFIELD CORP. 49
SINCLAIR OIL CORP
SKF INDUSTRIES, INC
Agency O. S. Tyson & Co., Inc. SPERRY GYROSCOPE CO
Agency-Hugh H. Graham & Assoc., Inc.
STANDARD CONVEYOR CO
Agency - Klau-Van Pietersom-Dunlap, Inc.
Agency - Klau-Van Pietersom-Dunlap, Inc. STANDARD PRESSED STEEL CO
Agency—Gray & Rogers STROMBERG TIME CORP 133
Agency—Gray & Rogers STROMBERG TIME CORP
Agency—Gray & Rogers STROMBERG TIME CORP
Agency Gray & Rogers STROMBERG TIME COOR 133
Agency Gray & Rogers STROMBERG TIME COAP 133
Agency Gray & Rogers 133
Agency Gray & Rogers 133
Agency Gray & Rogers 133
Agency Gray & Rogers 133
Agency—Gray & Rogers STROMBERG TIME CORP
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Rerk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. Adv. Agency SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Roger SYNTHANE CORP. 87 Agency—Gray & Roger Agency—Hell Mebblins, Inc. 167 Agency—Hell Mebblins, Inc. 168 TERADO CO. 168 Agency—Hell Mebblins, Inc. 168 Agency—Hell Mebblins, Inc. 168 TOLEDO SCALE CO. 42 Agency—Hell Mebblins, Inc. 168 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & Minith & Ros. Inc. THE STRUNDLE ENGINEERING CO. 50 Agency—Puller & Minith & Ros. Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. Agency—Mebrum & Feyswith, Inc. UNION FACEFIC SALLHOAD. 137 U. S. AIR CONDITIONING. 196 Agency—Jaffe Adv. Agency
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Halon Adv. Agency Stromber Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYNTHANE CORP. 87 Agency—John Falkner Armit & Co. Inc. SYNTHANE CORP. 105 SYNTHANE CORP. 105 SYNTHANE CORP. 105 STELECOMPUTING CORP. 105 TELECOMPUTING CORP. 105 TELECOMPUTING CORP. 105 TELECOMPUTING CORP. 105 TELECOMPUTING CORP. 105 TRANCE CORP. 105 Agency—Reson Reighert, Inc. 104 TRAYELETTER CORP. 105 Agency—Moore & Co., Inc. 105 TRAYELETTER CORP. 105 TRAYELETTER CORP. 105 TRAYELETTER CORP. 105 TRAYELETTER CORP. 105 Agency—Moore & Co., Inc. 105 TRUSCON STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Meldrum & Fewsmith, Inc. UNION PACIFIC RAILROAD 137 Agency—Meldrum & Fewsmith, Inc. UNION PACIFIC RAILROAD 137 Agency—Jane Adt. Agency U. S. AIR CONDITIONING 196 Agency—Jane Adt. Agency U. S. STEEL CORP. 105 LINEARY AGENCY 105 LINEARY AGENCY 105 LINEARY AGENCY 105 LINEARY 105
Agency—Gray & Rogers STROMBERG TIME CORP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Haco Adv. Agency SUN OIL CO. 84 Agency—Haco Adv. Agency SUN OIL CO. 84 Agency—Haco Adv. Agency STROMBERGER CORP. 87 Agency—John Falkner Arnolt & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Stebbins, Inc. TERADO CO. 426 Agency—Hall Stebbins, Inc. 125 Agency—Hall Stebbins, Inc. 126 TOLEDO SCALE CO. 125 Agency—Hall Stebbins, Inc. 196 TRAVELETTER CORP. 196 Agency—Fuller Amnith & Ross, Inc. TRUSCON STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Fuller Amnith & Ross, Inc. TRUSCON STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Fuller Amnith & Ross, Inc. TOLEDO STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Fuller Amnith & Ross, Inc. THUSCON STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Julier Amnith & Ross, Inc. THUSCON STEEL DIV. REPUBLIC STEEL CORP. 139 Agency—Julier Amnith & Ross, Inc. The Caples of Steel Comp. 196 U. S STEEL CORP. 197 Agency—Julier All Agency 196 U. S STEEL CORP. 197 Agency—Julier All Agency 196 U. S STEEL CORP. 197 Agency—Julier All Agency 196 U. S STEEL CORP. 197 Agency—Julier All Agency 196 U. S STEEL CORP. 197 Agency—Julier All Agency 196 U. S STEEL CORP. 197 Agency—Julier All Agency 197 U. S Agency—Julier All Larton, Duratine & Osborn, Inc.
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. 84 SYLORIC CO. 84 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 87 Agency—Half ELECTRIC PRODUCTS, INC. 77 Agency—John Falkner Arndt & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hal Stebbins, Inc. 106 TERADO CO. 125 Agency—Hal Stebbins, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Fuller & Minth & Ross, Inc. THE TRUNDLE ENGINEERING CO. 50 Agency—Fuller & Minth & Ross, Inc. TRUSCON STEEL DIV, REPUBLIC STEEL CORP. 139 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Welsking CORP. 31 Agency—Welsking Comp. 361 Agency—Welsking Comp. 196 Agency—Welsk & Geller, Inc. 196 OGEL-PETERSON CO. 186
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. 84 SYLORIC CO. 84 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 87 Agency—Half ELECTRIC PRODUCTS, INC. 77 Agency—John Falkner Arndt & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hal Stebbins, Inc. 106 TERADO CO. 125 Agency—Hal Stebbins, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Fuller & Minth & Ross, Inc. THE TRUNDLE ENGINEERING CO. 50 Agency—Fuller & Minth & Ross, Inc. TRUSCON STEEL DIV, REPUBLIC STEEL CORP. 139 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Welsking CORP. 31 Agency—Welsking Comp. 361 Agency—Welsking Comp. 196 Agency—Welsk & Geller, Inc. 196 OGEL-PETERSON CO. 186
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. 84 SYLORIC CO. 84 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 85 SYLORIC CO. 87 Agency—Half ELECTRIC PRODUCTS, INC. 77 Agency—John Falkner Arndt & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hal Stebbins, Inc. 106 TERADO CO. 125 Agency—Hal Stebbins, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Half Stebbert, Inc. 196 Agency—Fuller & Minth & Ross, Inc. THE TRUNDLE ENGINEERING CO. 50 Agency—Fuller & Minth & Ross, Inc. TRUSCON STEEL DIV, REPUBLIC STEEL CORP. 139 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Meditum & Fewanith, Inc. UNION PACIFIC RAILROAD 137 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Time Capies Co. 196 Agency—Welsking CORP. 31 Agency—Welsking Comp. 361 Agency—Welsking Comp. 196 Agency—Welsk & Geller, Inc. 196 OGEL-PETERSON CO. 186
Agency—Gray & Rogers STROMBERG TIME CORP. 133 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Asency—Harry Berk THE STURGIS POSTURE CHAIR CO. 84 SUN OIL CO. 84 SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Cell & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Skebbins, Inc. 105 TERADO CO. 126 Agency—Hall Skebbins, Inc. 127 OLEDO SCALE CO. 126 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 197 TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Fuller & Mnith & Ross, Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Julic & Mnith & Ross, Inc. Agency—The Caples Co. 137 Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 197 Agency—Hoss Lievellyn, Inc. 198 Agency—Hoss Lievellyn, Inc. 199 Agency—Hoss Lievellyn, Inc. 199 Agency—Le Midcarthy & Co. 97 Agency—Le Midcarthy & Co. 97 ARR LECTRIC CO. 97
Agency—Gray & Rogers STROMBERG TIME CORP. 133 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Asency—Harry Berk THE STURGIS POSTURE CHAIR CO. 84 SUN OIL CO. 84 SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Cell & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Skebbins, Inc. 105 TERADO CO. 126 Agency—Hall Skebbins, Inc. 127 OLEDO SCALE CO. 126 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 197 TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Fuller & Mnith & Ross, Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Julic & Mnith & Ross, Inc. Agency—The Caples Co. 137 Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 197 Agency—Hoss Lievellyn, Inc. 198 Agency—Hoss Lievellyn, Inc. 199 Agency—Hoss Lievellyn, Inc. 199 Agency—Le Midcarthy & Co. 97 Agency—Le Midcarthy & Co. 97 ARR LECTRIC CO. 97
Agency—Gray & Rogers STROMBERG TIME CORP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 84 SAMORY—Harry Berk SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Cell & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Skebbins, Inc. 105 TERADO CO. 156 Agency—Hall Skebbins, Inc. 125 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 197 TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Weltrum & Favennth, Inc. U.S. AIR CONDITIONING 196 Agency—Jaffe Adt, Agency U.S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 191 Agency—Hoss Liewellyn, Inc. ULCAN COPPER & SUPPLY CO. 191 Agency—James Thomas Chirurg Co. Inc. WARNER & SWASEY CO. 11
Agency—Gray & Rogers STROMBERG TIME CORP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 84 SAMORY—Harry Berk SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Cell & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Skebbins, Inc. 105 TERADO CO. 156 Agency—Hall Skebbins, Inc. 125 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 196 Agency—Heeson-Berchert, Inc. 197 TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 Agency—Weltrum & Favennth, Inc. U.S. AIR CONDITIONING 196 Agency—Jaffe Adt, Agency U.S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 191 Agency—Hoss Liewellyn, Inc. ULCAN COPPER & SUPPLY CO. 191 Agency—James Thomas Chirurg Co. Inc. WARNER & SWASEY CO. 11
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. Adv. Agency STURGIS POSTURE CHAIR CO. 84 Agency—Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Jial Richer Arndt & Co. Inc. 166 Agency—He & Fischhein & Assoc., Inc. 166 Agency—He & Fischhein & Assoc., Inc. 167 TOLEDO SCALE CO. 42 Agency—Benson-Belehert, Inc. 168 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE CORP. 139 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 Agency—Jaffe Ads. Agency U. S STEEL CORP. 190 Agency—Jaffe Ads. Agency 190 Agency—Her RESON CO. 186 Agency—Her Benson CO. 186 Agency—Her Benson CO. 186 Agency—Her RESON CO. 191 Agency—The Griswold-Eshburan CO. 191 Agency—The Griswold-Eshburan CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO.
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. Adv. Agency STURGIS POSTURE CHAIR CO. 84 Agency—Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Jial Richer Arndt & Co. Inc. 166 Agency—He & Fischhein & Assoc., Inc. 166 Agency—He & Fischhein & Assoc., Inc. 167 TOLEDO SCALE CO. 42 Agency—Benson-Belehert, Inc. 168 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE CORP. 139 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 Agency—Jaffe Ads. Agency U. S STEEL CORP. 190 Agency—Jaffe Ads. Agency 190 Agency—Her RESON CO. 186 Agency—Her Benson CO. 186 Agency—Her Benson CO. 186 Agency—Her RESON CO. 191 Agency—The Griswold-Eshburan CO. 191 Agency—The Griswold-Eshburan CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO.
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. Adv. Agency STURGIS POSTURE CHAIR CO. 84 Agency—Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Jial Richer Arndt & Co. Inc. 166 Agency—He & Fischhein & Assoc., Inc. 166 Agency—He & Fischhein & Assoc., Inc. 167 TOLEDO SCALE CO. 42 Agency—Benson-Belehert, Inc. 168 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE CORP. 139 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 Agency—Jaffe Ads. Agency U. S STEEL CORP. 190 Agency—Jaffe Ads. Agency 190 Agency—Her RESON CO. 186 Agency—Her Benson CO. 186 Agency—Her Benson CO. 186 Agency—Her RESON CO. 191 Agency—The Griswold-Eshburan CO. 191 Agency—The Griswold-Eshburan CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO.
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Berk THE STURGIS POSTURE CHAIR CO. 83 SUN OIL CO. Adv. Agency STURGIS POSTURE CHAIR CO. 84 Agency—Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Gray & Rogers SYRTHANE CORP. 67 Agency—Jial Richer Arndt & Co. Inc. 166 Agency—He & Fischhein & Assoc., Inc. 166 Agency—He & Fischhein & Assoc., Inc. 167 TOLEDO SCALE CO. 42 Agency—Benson-Belehert, Inc. 168 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE TRUNDLE ENGINEERING CO. 50 Agency—Puller & MRINTE & Ross. Inc. 170 THE CORP. 139 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 UNION PACIFIC RAIL ROAD. 137 Agency—Meditum & Fewsmith, Inc. 170 Agency—Jaffe Ads. Agency U. S STEEL CORP. 190 Agency—Jaffe Ads. Agency 190 Agency—Her RESON CO. 186 Agency—Her Benson CO. 186 Agency—Her Benson CO. 186 Agency—Her RESON CO. 191 Agency—The Griswold-Eshburan CO. 191 Agency—The Griswold-Eshburan CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 MARNER & SWASEY CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 S. WEBSTER CO. 192 LE WATERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE F. METERMAN PER CO. 110 LE WATERMAN PER CO. 110 LE F. METERMAN PER CO.
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Adv. Agency SUN OIL CO. 84 SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Ceil & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Heeson-Refebert, Inc. 105 TAYELETTER CORP. 196 Agency—Moore & Co., Inc. THE THUNDLE ENGINEERING CO. 50 Agency—Fuller & Multh & Ross, Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 106 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. WEBSTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHI
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Adv. Agency SUN OIL CO. 84 SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Ceil & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Heeson-Refebert, Inc. 105 TAYELETTER CORP. 196 Agency—Moore & Co., Inc. THE THUNDLE ENGINEERING CO. 50 Agency—Fuller & Multh & Ross, Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 106 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. WEBSTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHI
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harry Berk THE STURGIS POSTURE CHAIR CO. 83 Agency—Harcy Adv. Agency SUN OIL CO. 84 SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Ceil & Presbrey, Inc. SYNTHANE CORP. 67 Agency—John Falkner Arndit & Co. Inc. TELECOMPUTING CORP. 105 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Hall Stebbins, Inc. 105 TERADO CO. 125 Agency—Heeson-Refebert, Inc. 105 TAYELETTER CORP. 196 Agency—Moore & Co., Inc. THE THUNDLE ENGINEERING CO. 50 Agency—Fuller & Multh & Ross, Inc. TRUSCON STEEL DIV., REPUBLIC STEEL CORP. 139 UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD, Inc. UNION PACIFIC RALLROAD Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Jaffe Adv. Agency U. S. AIR CONDITIONING 196 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 106 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE VISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. WEBSTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. THE WISKING CORP. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CO. 107 Agency—Hatten, Barton, Durstine & Osborn, Inc. The WISBTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHICAGO CORP. 134 Agency—Hatten, Barton, Durstine & Osborn, Inc. MEBSTER CHI
Agency—Gray & Rogers STROMBERG TIME COAP. Agency—Herry Rerk THE STURGIS POSTURE CHAIR CO. 83 Agency—Herry Rerk THE STURGIS POSTURE CHAIR CO. 84 Agency—Gray & Rogers SYLVANIA ELECTRIC PRODUCTS, INC. 77 Agency—Gray & Rogers SYNTHANE CORP. 87 SYNTHANE CORP. 97 FERODO CO. 160 Agency—Her Rebbins, Inc. 165 Agency—He Rebbins, Inc. 166 Agency—He Rebbins, Inc. 167 Agency—He Rebbins, Inc. 167 Agency—He Rebbins, Inc. 167 Agency—He Rebbins, Inc. 167 Agency—He Rebbins, Inc. 168 Agency—Ho Gribs, Inc. 168 Agency—Ho Gribson, Inc. 168 Agency—Ho Gribson, Inc. 168 Agency—He Herry Inc. 168 Agency—He Herry Inc. 168 Agency—Herry

A New Secretary of Labor

There have been eight secretaries of labor in the history of the United States. The first seven were all pretty much of a type, whether they were named by a Republican or a Democratic president. William B. Wilson, who got the post when it was first established in 1913, was a mine workers' union organizer and politician. "Puddler Jim" Davis who followed him was an AFL steelworker and a politician. William N. Doak, who served under Herbert Hoover, was an officer of the Trainmen's union and politician. Frances Perkins, who stayed in the position longer than anyone else, was a social worker who could not be accurately described as nonpolitical. Lewis Schwellenbach and Maurice J. Tobin were politicians without formal union connections. And Martin P. Durkin was, as it will not likely be soon forgotten, an AFL man to the core.

James P. Mitchell, named last week by President Eisenhower as eighth secretary of labor, is distinctly not in the tradition. He has never belonged to a union. He has never run for public office. He has never held a job that could be classified as a political appointment. His wartime service in the War Dept. was as a labor relations and manpower expert; the assistant secretaryship of the Army he just left was a position of the same sort.

Aside from this government service, the major part of his career has been in junior positions in manufacturing (Western Electric), and executive jobs in retailing (Macy's and Bloomingdale's). The only valid classification for him is businessman.

Bolder Experiment

Thus, in one important way, Mitchell's appointment is a bolder experiment than the choice of Durkin last December—an event that occasioned considerable surprise. But bolder though it may be, it makes a lot more sense.

For Mitchell carries no banners; has no division of loyalties that, suppressed, would render him ineffectual or, given free play, would make him erratic and rebellious. He is an Eisenhower man—not out of partisan attachment, but because of rational agreement with the Eisenhower "middle of the road" program—especially as it applies in Mitchell's own labor field. He shares Eisenhower's firm belief that fair labor policies and a minimum of government intervention are, first of all, right, and second, the best politics. And he shares Eisenhower's dread lest class division become the overriding fact of American political life and the Republican Party become identified as "anti-labor."

The secretaryship of labor is enormously more important now than it was when Durkin was named. Nowhere on the domestic front has the Administration drifted so badly. The Taft-Hartley muddle, bad morale in the Labor Dept., open and active hostility of organized labor, the confusion over Durkin's resignation—all make the

secretaryship a more critical post by far than it was in the halcyon days of last December.

And because no one can think of Mitchell as a mere legate of the labor movement, his place in the high councils of government will be larger than his predecessor's; his voice in the cabinet and in the White House will have a more effective ring.

The country thinks of the Eisenhower Administration as a businessman's government. The public will be impatient of fine distinctions if Eisenhower fails; business will be held responsible. In the nation's interest and in its own, business should practice the virtues of restraint, statesmanship, and cooperation. This can be its contribution toward the Administration's success.

We urge the same for Mitchell. Business should not abdicate its right to present its point of view to the Secretary of Labor. But business could do itself a long-run disservice through any effort to make him its captive. The law says his first responsibility is to represent the interests of America's wage-earners. We have some confidence that he can do it capably, wisely, and in a way that, by giving our country greater internal strength, will strengthen the enterprise system to which Mitchell, himself, is completely committed.

The Customers Are Flush

American consumers are better off than ever before. The Federal Reserve Board estimates that they have a net worth of \$640-billion (BW-Oct.3'53,p156). The Commerce Dept. reports that their incomes for the first eight months of 1953 are at a record annual rate of \$284-billion. Personal savings are 6.9% of income after taxes—a whopping \$16-billion a year.

These impressive figures not only indicate the consumer's prosperity—they are proof that he is sitting in the driver's seat. His spending will largely determine the level of business activity. In fact, as Harvard economist Sumner Slichter points out, the best way to avert a recession is to get customers to buy more.

As Slichter sees it, consumers can safely reduce their saving to about 5% after taxes. This would pump another \$5-billion a year into the economy.

But consumers won't spend an extra \$5-billion—or even \$1-billion—without an incentive. It will be up to business to sell them. Business must compete more effectively with the consumer's desire to save. This can only be done if business offers better goods at more attractive prices.

This is a real challenge. As Slichter states: "The potential demand is there. . . . It will be a blot on the American system of private enterprise and a reflection on the resourcefulness of American management if unemployment develops because business concerns are unable to persuade consumers . . . to raise their spending."

Winters are longer



in some refrigerators

Grease Shield



The cold fact is, anything which operates intermittently has a longer life expectancy when equipped with Fafnir Sealed or Shielded Ball Bearings. Specifically designed to retain lubricants, exclude dirt and contaminants, these protected bearings keep household appliances, electric motors, textile machinery, or farm equipment running smoother, longer, without attention or breakdowns — even when neglected.

Here is another instance of the Fafnir "attitude and aptitude" for providing the right bearing for the need. It's a way of looking at bearings from the user's point of view. More than likely this application approach to ball bearing design, in which top quality is only the beginning, can improve your product. Fafnir's experience, remember, is over 40 years long — and industry wide.

The Fafnir Bearing Company, New Britain, Conn.

FAFNIR

BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

More than top quality in ball bearings

... it what Faguir has on the ball



The farther he goes! the tighter KEPS hold!

Few products create the intense, throbbing vibration of an outboard motor. That's why every major motor manufacturer needs the outstanding vibration protection of KEPS... pre-assembled nuts and lock washers. With KEPS, every nut is protected against vibration loosening . . . no one can "forget" the vital lock washer that keeps fastenings tight!

LOOK FOR THE TEETH !

Wherever you see these teeth that bite, of you'll know you are getting the extra protection of SHAKEPROOF® Lock Washers.



FREE ... PRODUCT ANALYSIS SERVICE

Shakeproof fastening specialists, experienced with the requirements of nearly every mass-assembly industry, are at your service to help your staff develop improved, lower-cost fastening methods.

HAVE YOUR PRODUCT "FASTENING ANALYZED"

"Fastening Headquarters" *

DIVISION OF ILLINOIS TOOL WORKS

St. Charles Road, Elgin, Illinois

Offices in principal cities

In Canada: Canada Illinois Tools Limited, Toronto, Ontario